

17/12/2020 reference H2506

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To whom it may concern,

Ultrakleen HF

- Product description: alkaline foaming cleaner
- Product use: for food factories food contact surfaces non-CIP

"Passed AsureQuality assessment for food/ beverage/ dairy factory food contact surfaces non-CIP, drained & residues minimised by e.g. potable rinse & final residue evaporated dry" H2559 with conditions. This assessment was prepared by Global Proficiency Ltd using HACCP principles to determine equivalence with food standards listed below. See <http://assessedproducts.asurequality.com>. This supports food Risk Management Programmes & other endorsements that may apply to this product include MPI regulated farm dairy approval, MPI dairy factory endorsement, MPI regulated non-dairy animal product approvals, EPA HSNO-OSH-environment approval (& previously AQIS).

Conditions:

- Used per instructions, legislation, & GMP, for food contact surfaces, non-CIP, drained & residues minimised by e.g. potable rinse & let dry. Carry-over to food should be minimised to ensure food function or composition are not affected, that residues are within applicable Maximum Residue Limits and that food legislation requirements are met.
- The assessment is subject to notification of change and expires on 11/02/2026.
- The full report is attached for supplier review and verification. The assessment is activated by countersigning & inclusion of assessment precautions / assessment statement / MPI dairy statement

Prepared by Global Proficiency for AsureQuality Ltd... *R J Hutchinson*

Supplier:..... Date:.....

Scope and purpose of the assessment:

- Asurequality assessment is a non-regulated, voluntary, and evidential certification by the supplier demonstrating equivalence with food safety standards, and also that product instructions address hazards for staff & equipment. The assessment is independently confirmed, without prejudice or guarantee, using information submitted by the supplier or from other sources. Confidentiality of the product formulation is maintained using coded material identifiers in the report, and appendices containing confidential information are provided only to the supplier.
- Scope: NZ checks (FSANZ, US FDA 21 CFR/ NSF, Food Chemicals Codex, EPA NZ, EU, French culinary listings or related data for equivalent safety). NZ background (Animal Products Act, Risk Management Programmes. Detergent & Sanitiser Manufacturer's Code of Practice, Detergent & Sanitiser Standards and Analytical Methods. Quality Manual - Assessment Procedures

Summary of assessment with risks highlighted:

- Information status & prior registrations (Renewed AQ Assessment. MPI C38, HSR002526 & HSNO Hazards).
- Food safety (Use on food surfaces rinsed viz incidental contact. Ingredients found from within the food / safety references group above)
Purity (wants C of A added for at least Raw 2 per FSANZ / Food Chem Codex taking into account low contact).
- QA (not yet ISO 9001 sighted ok for non-CIP or with QC in lieu).
- QC (chemistry per previous supply purity inserted).
- Instructions –
 - Label (Danger. Strong Alkali. Ultrakleen HF. Powerful alkaline foaming cleaner. It is a strong cleaner to remove difficult soiling from processing equipment in food industry and industrial complexes. It is effective at low temperature and low concentrations and has a high stable foam. MPI Approved C38 all animal products except dairy. AsureQuality Assessed (rather than approved) Food / Beverage / Dairy ref H2506. Emergency contact 0800 764 766 Hazard classifications 6.1E, 6.8B, 8.2B, 8.3A, 9.1C, 9.3C. UN3266., PGII, Hazchem 2X, Corrosive liquid, basic, inorganic, NOS (contains Sodium Hydroxide). EPANZ HSR002526. Corrosive 8. Contains Sodium hydroxide 88 g/L. Hazards (Harmful if swallowed. Causes severe skin burns & eye damage. Suspected of damaging fertility or the unborn child. Lists for Precautions & First Aid. Directions (Rinse gross soil with cold water prior to application. Foam application a 1-2% cold. Manual application at 0.5-2% in cold to warm water. Contact time 10-15 minutes, agitating surface where possible, and rinse thoroughly with potable water before production starts. In large processing rooms product/ packaging may be present during cleaning per conditions of C38 approval). Important section).
 - SDS (Ultrakleen HF. Heavy duty Heavy Duty Foaming Alkaline Cleaner per Hygiene Technologies Ltd & details. Classified DG, Hazardous HSNO Classifications 6.1E (acutely toxic), 6.8B (suspected reproductive or developmental toxicant), 8.2B (corrosive to skin, 8.3A (corrosive to eyes), 9.1C (Harmful in the aquatic environment), 9.3C (harmful to terrestrial vertebrates). Hazard, & Precautions. Composition Surfactants - 10-20%, Sodium hydroxide 1310-73-2 5-10%, Chelating agents/sequestrants - 1-5%, Butoxyethanol 111-76-2 1-5%, Water 7732-18-5 To 100%). Exposure controls and limits set for Sodium hydroxide WES TWA ceiling 1 mg/m3, 2-butoxyethanol 121 mg/m3. Properties SG 1.2m, pH >11.5/1%). Toxicology (acute similar to Hazards & chronic had no information available & LD50 oral rabbit 300 mg/kg). Ecology etc lists. Regulatory (HSR002426 Cleaning products corrosive group standard. Trigger quantities etc)

- Unwanted effects (Per instructions including label, & SDS, HSNO hazards & most ingredients vs AICS, NZIoC. Production side effects not expected for this formulation).
- Hygiene efficacy (per formulation in line with pH & IDF 9101 formula guides (n/a regarding FDA 21 CFR 178.1010 & EPA 40 CFR180.940) & 5 years use)

Contents (This is a simplified report with sections 2-11 replaced by a summary on p1 and in the table in section 1)

0 Information is to be evidential (std 0).	1 Materials safety and residues etc
2 Material (other – function)	3 Quality assurance certificate
4 Purity (or Design, formulation, fabrication and finish).	5 Instructions
6 Freedom from apparent side effects	7 Efficacy or hygiene to meet food safety margins
8 Packaging safety.	9 Summary of submitted information etc
10 Standards/References - front page/may be attached	11 Contacts.
12 Confidential information re design, formulation etc.	13 Covering letter & then 14 Raw material confidential information

Risk Rating (failure/accident)

	Chemical	Microbiological
Incidence	Low	Low
Susceptibility	Low	Low (higher post heat treatment)
Severity	Low	Low
Total	Low	Low (higher post heat treatment)

Organics

For organic production when food is absent during use and residues are rinsed etc. Reference NZS8410 Organic Production section 10 Storage, transport, preparation and handling. 10.1.2 Where the premises vehicles and equipment are used solely for organic products: (a) Only those substances used in table D1 shall be used for housekeeping purposes in the presence of the product (note that product absence is already a requirement of this assessment). If other materials are used for cleaning, surfaces that could come in contact with organic products shall be flushed with potable water prior to re-entry of organic products, and any airborne substance dispersed. (b) If there are products of more than one organic status (e. g. organic and in conversion to organic), the requirements of 10.1.3 shall be followed as if the higher status organic product were in the presence of products not complying with this standard. 10.1.3 (Note that If not dedicated to organics then the plan must state how there is no non-organics inclusion including "sealing, labelling, documentation").

Evaluation: Note that Standards vs. submission-responses yield compliance status in each of the sections below.

Nature of information

0 Standard: Assurance information is to be evidential/cross-registered/or ex accredited bodies (and approvals may need levels of independence for toxicity and efficacy).

- Information status & prior registrations (Renewed AQ Assessment. MPI C38, HSR002526 & HSNO Hazards).

Raw materials:

1 Standard:

Raw materials are to be identified safe: traceably identified, non-toxic, and pure - depending on the level of contact. Raw materials are to be safe at residue levels with safety factors (simplified here eg per cross-registration of USFDA 21 CFR/ ANZF/ EU etc registrations factored for likely equivalence and recognising high 1.5 L milk consumption would have been required by FDA etc – refers to supplier confidential appendix but with identifiers excluded

Response

(Hygiene Technologies) Ultrakleen HF H2506 21-12-2020	Registrations column. Scope: checks (Food Standards Australia NZ, NICNAS AICS, EPANZ NZIoC, US FDA 21 & 40 CFR/ NSF, Food Chemicals Codex, EPA NZ, EU, French culinary listings, WHO or MPI, or related data for equivalent safety). Background ("Accord", Animal Products Act, Risk Management Programmes. Detergent & Sanitiser Manufacturer's Code of Practice, Detergent & Sanitiser Standards and Analytical Methods. Quality Manual - Assessment Procedures	Purity column Scope: Purity column raw purities to be per FSANZ purity wanted (as ingredient etc) FCC7 2010-2011 with GMP indicators & FSANZ also (require Pb<2, As<1, Heavy metals <40 mg/kg). Purity column.
HACCP analysis & instructions summary. & 2nd table has raw material carry overs over-estimated based on farm contact surface use as a model	Label (Danger. Strong Alkali. Ultrakleen HF. Powerful alkaline foaming cleaner. It is a strong cleaner to remove difficult soiling from processing equipment in food industry and industrial complexes. It is effective at low temperature and low concentrations and has a high stable foam. MPI Approved C38 all animal products except dairy. AsureQuality Assessed (rather than approved) Food / Beverage / Dairy ref H2506. Emergency contact 0800 764 766 Hazard classifications 6.1E, 6.8B, 8.2B, 8.3A, 9.1C, 9.3C. UN3266., PGII, Hazchem 2X, Corrosive liquid, basic, inorganic, NOS (contains Sodium Hydroxide). EPANZ HSR002526. Corrosive 8. Contains Sodium hydroxide 88 g/L. Hazards (Harmful if swallowed. Causes severe skin burns & eye damage. Suspected of damaging fertility or the unborn child. Lists for Precautions & First Aid. Directions (Rinse gross soil with cold water prior to application. Foam application a 1-2% cold. Manual application	SDS (Ultrakleen HF. Heavy duty Heavy Duty Foaming Alkaline Cleaner per Hygiene Technologies Ltd & details. Classified DG, Hazardous HSNO Classifications 6.1E (acutely toxic), 6.8B (suspected reproductive or developmental toxicant), 8.2B (corrosive to skin, 8.3A (corrosive to eyes), 9.1C (Harmful in the aquatic environment), 9.3C (harmful to terrestrial vertebrates). Hazard, & Precautions. Composition Surfactants - 10-20%, Sodium hydroxide 1310-73-2 5-10%, Chelating agents/sequestrants - 1-5%, Butoxyethanol 111-76-2 1-5%, Water 7732-18-5 To 100%). Exposure controls and limits set for Sodium hydroxide WES TWA ceiling 1 mg/m3, 2-butoxyethanol 121 mg/m3. Properties SG 1,2m, pH >11.5(1%). Toxicology (acute similar to Hazards & chronic had no

	at 0.5-2% in cold to warm water. Contact time 10-15 minutes, agitating surface where possible, and rinse thoroughly with potable water before production starts. In large processing rooms product/ packaging may be present during cleaning per conditions of C38 approval). Important section).	information available & LD50 oral rabbit 300 mg/kg). Ecology etc lists. Regulatory (HSR002426 Cleaning products corrosive group standard. Trigger quantities etc)
HACCP analysis of other aspects	Information status & prior registrations (Renewed AQ Assessment. MPI C38, HSR002526 & HSNO Hazards). Food safety (Use on food surfaces rinsed viz incidental contact. Ingredients found from within the food / safety references group above) Purity (wants C of A added for at least Raw 2 per FSANZ / Food Chem Codex taking into account low contact). QA (not yet ISO 9001 sighted ok for non-CIP or with QC in lieu). QC (chemistry per previous supply purity inserted).	Unwanted effects (Per instructions including label, & SDS, HSNO hazards & most ingredients vs AICS, NZIoC. Production side effects not expected for this formulation). Hygiene efficacy (per formulation in line with pH & IDF 9101 formula guides (n/a regarding FDA 21 CFR 178.1010 & EPA 40 CFR180.940) & 5 years use)
Combined formulation 100% comprises ingredients below. Carryover in 2nd table per farm model		
Raw1 surfactant acid anionic surfactant.	Similar - Sodium salt of - NICNAS AICS (listed not requiring secondary notification). EPA NZ (list shows HSR00xxxx without restriction, CCID shows acutely toxic, skin irritant corrosive to eyes, ecotoxic to aquatics & soil and harmful to vertebrates). FSANZ Food Standards Code (1.3.3.12 Permitted washing and peeling with GMP) 40 CFR 180.940 limits antimicrobial/ pesticide/ combine when ready for use, the end-use concentration is not to exceed 400 ppm. USA FDA 21 CFR 178.1010 not in excess, drained, not necessarily rinsed, not extended to dairy, limited in USA to <400 ppm acid, 25-430 ppm sodium salt, un-rinsed application.	Purity wanted per column header) Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)
Raw 2 Base	EPANZ Cosmetic list unreturned. NICNAS AICS human health tier 2 no 2nd notification. Has EPA NZ HSR00xxxx - in appendix. FSANZ 1.3.3.3 found as GP processing aid for food, water sufficient for function. FSANZ 1.3.1 schedule 2 unfound direct additives with GMP & unreturned (probably not precluding whey classified industrial & consumed). USAFDA21CFR 173.310 culinary steam, 184 -ingredient specified uses found GRAS with GMP 9CFR318.7 FOUND "sufficient" used in olives, brandy fats, hog and poultry scalds, margarine, wine, spirits etc. EPA genetic toxicity programme. Toxicity (before neutralisation in food) OSHA PEL 2 mg/m3 etc. & corrosive and poison by intra-peritoneal route etc.	184.1763 requires Food Chem. Codex. Internationally - various National Permissions as dairy neutraliser - refer Elsevier - mostly not permitted as per FSANZ. Purity wanted per column header with FCC7 2010-2011 GMP indicators: assay 97%, As<3 mg/kg., Na2CO3 <3%, Pb <2 mg/kg, Hg<0.1 mg/kg. FSANZ Pb<2, As<1, Heavy metals <40 mg/kg). Purity found (unfound now and 5 years prior and please add for >5% & indirect contact)
Raw 3 mild base/preservative	NICNAS AICS listed not assessed. FDA21CFR, FSANZ FS Code, & EC food/feed biocides not found. Orica information is LD50 rat 3200-3400 mg/kg, dermal LD50 rabbits >2000 mg/kg, inhalation LC50 rats >2 mg/L. Ingestion of large doses may cause severe gastrointestinal irritation, kidney injury and may result in death from CNS depression...1995 MOH Drinking Water Standards for NZ have Maximum Allowed Value MAV in drinking water of 0.3 mg/L.	The acute toxicity is per NIOSHLD50 orl rat 2660 mg/kg, oral mouse 3450 mg/kg. These are over the 2000 mg/kg UK guideline for detergents. Purity wanted (per column header). Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)
Raw 4 sequestrant	EPANZ cosmetic list unreturned. NICNAS AICS human health tier 1 no 2nd notification required. EPA NZ under HSR00xxxx. SIMILAR material had 21 CFR 173.310 .310 "boiler water additives not in excess and listed in the section). Also has registered uses as hog scald sequestrant and stabiliser for peas cereal, dressings, sausage, pies... as regulated per 21CFR172.135 (172"Food additives permitted for direct addition to food for human consumption, .135 lists permitted mg/kg limits in particular foods and uses for those foods - not dairy) E.g. to 150 mg/kg in aqueous multivitamins, 145 mg/kg in black eyed peas, 500 mg/kg in strawberry pie....., 0.1% in dry non-nutritive sweeteners (21 CFR 180.37) ...USDA 9 CFR 318.7 sufficient for purpose.	Poison by intravenous, moderately toxic by ingestion, experimental reproductive and mutagenic effects and toxicity data is available generally and ex BASF it is not absorbed, excreted inside 24 hours, with no carcinogenic, mutagenic, geno-toxic effects under realistic levels. with extended studies. The NOEL for NTA is 20 mg/kg, ADI 0.2 mg/kg. NZ Food Regs 1984, No 271 for steam for food tech grade & no entrained water. FSANZ FS Code 1.3.3.11 found for process & packaged water & subject to GMP. Purity wanted (per header & US FCC 7 (10-11) had Pb 10, Hg 1 mg/kg). Purity found (not found or required for negligible contact here)
Raw 5 Sequestrant	NICNAS AICS Listings (listed w/o concern). EPA NZ (use under appropriate group standard HSR00xxxx). FSANZ Code (Food additive 1.3.1 schedule 2 found similar (lactone) for processed foods). USA FDA 21CFR (182.6757 FOUND, GRAS with GMP as dietary supplement, nutrient, sequestrant). Other toxicity (Toxicity low by intra-venous route, LDLo intra-venous rabbit 7630 mg/kg. 173.315 & within the meaning of 172.135 direct process food additive to e.g. 150 ppm etc. FOUND. Toxicity low by intravenous route, LDLo ivn rabbit 7630 mg/kg).	Purity wanted (per header & FCC7 2010-2011GMP indicators 98-102%, Pb<2 mg/kg, reducers <0.5%). Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)
Raw 6 surfactant	EPANZ Cosmetic Std list search unreturned. NICNAS AICS listed as not assessed. NZIoC listed registration number. USAFDA21CFR178.1010, & 178.3400 for food contact surfaces (found). CTFA found. FSANZ 1.3.3.3 may be similar	Purity wanted (per column header which refers to US FCC 7 (10-11) (entry unfound). Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)
Raw 7 other solvent.	AICS ok with no 2nd notification. NZIoC HSR00xxxx found ok CAS Similar material had ready alkyl C2 degradation path to glycol & this path is towards a food neg-listed alcohol. . Similar material had - Intermediate Volatility BP 171-2C. FDA 21CFR	Purity wanted (per column header). Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)

	178.1010 similar listed as food contact surface sanitiser ingredient. 40CFR 180.940 found limit "0" on contact / & utensil surfaces. FSANZ FS Code 1.3.3.3 unfound (similar found)	
Raw 8 Surfactant	NICNAS AICS human health tier 2 no 2nd notification required. NZIoC HSR00xxxx. FDA 21 CFR 178.1010.28 found at 31-62 MG/KG with fatty acid 156-312 MG/KG (here 160 mg/kg) & ANZFA 1.3.3.11 found similar only alkarylsulphonate drained and not necessarily rinsed in USA. ANZFA similar only found as bleaching washing and peeling agent for food to 0.7 mg/kg residue level. Purity not in Food Chemicals Codex. Side effects inc eco effects appear not problematic per IDF Bull 288 BS5305 ID 9101, & 9701 listing.	Environmental effect is not a concern per IDF Bull 288, fully mineralised and low toxicity and not "limiting" in most NZ waterways. Purity wanted per column header) Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)
Raw 9 ubiquitous	Ubiquitous & safe	
Sum of ingredients = 100% (got 100%)		
HD/GP margin pHs are 2 & 12.5. IDF 9101 guide alkalinity 0.02-0.5%, sequestrant 0.005-0.1%, surfactant 0-0.05%, sanitiser 0.015%-0.025%	pH growth ranges: B cereus 4.4-9.3, Campylobacter jejuni 4.9-9.0, C botulinum A & B 4.8-8.5 type E 5-8.5, C perfringens 5-8.9, Listeria monocytogenes 4.5-8.0, Salmonella 3.8-9,	Staph aureus 4.3-9.0, vibrio cholerae 6-11, vibrio parahaemolyticus 4.8-9, vibrio vulnificus 5-10, Yersinia enterocolitica 4.4-9.6

Table continued.	A formulation % w/w	A formulation % w/v	B formulation use low	C formulation use high	D raw use low (D=A*B)	E raw use high (E=A*C)	F residue low rinsed & drained mg/kg (F=106S/5000)	G residue use-high drained mg/kg (G=106S/300)	H ingestion mg/kg/day use-low & drain & rinse (H=1.5L*F/70kg)	I ingestion mg/kg/day use-high & drain (I=1.5L*G/70kg)
Combined formulation 100% comprises ingredients below. Carryover in 2nd table per farm model	100.0000%	110.00%	0.500%	2.000%	0.55000%	2.20000%	1.100	73.333	0.0236	1.5714
Raw1 surfactant acid anionic surfactant.	3.90%	4.29%	0.500%	2.000%	0.02145%	0.08580%	0.043	2.860	0.0009	0.0613
Raw 2 Base	15.200%	8.36%	0.500%	2.000%	0.04180%	0.16720%	0.084	5.573	0.0018	0.1194
Raw 3 mild base/preservative	1.00%	1.10%	0.500%	2.000%	0.00550%	0.02200%	0.011	0.733	0.0002	0.0157
Raw 4 sequestrant	0.90%	0.99%	0.500%	2.000%	0.00495%	0.01980%	0.010	0.660	0.0002	0.0141
Raw 5 Sequestrant	0.90%	0.59%	0.500%	2.000%	0.00297%	0.01188%	0.006	0.396	0.0001	0.0085
Raw 6 surfactant	35.00%	10.40%	0.500%	2.000%	0.05198%	0.20790%	0.104	6.930	0.0022	0.1485
Raw 7 other solvent.	3.70%	4.07%	0.500%	2.000%	0.02035%	0.08140%	0.041	2.713	0.0009	0.0581
Raw 8 Surfactant	5.50%	2.42%	0.500%	2.000%	0.01210%	0.04840%	0.024	1.613	0.0005	0.0346

Raw 9 ubiquitous	33.90%	37.29%	0.500%	2.000%	0.18645%	0.74580%	0.373	24.860	0.0080	0.5327
Sum of ingredients = 100% (got 100%)	100.000%									
HD/GP margin pHs are 2 & 12.5. IDF 9101 guide alkalinity 0.02-0.5%, sequestrant 0.005-0.1%, surfactant 0-0.-05%, sanitiser 0.015%-0.025%					11.7	12.3				

- Food safety (Use on food surfaces rinsed viz incidental contact. Ingredients found from within the food / safety references group above) Purity (wants C of A added for at least Raw 2 per FSANZ / Food Chem Codex taking into account low contact).
- **The formulation in confidence follows & is not for public circulation**

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Combined formulation 100% comprises ingredients below. Carryover in 2nd table per farm model		
Micolin LAS Dobanic acid CAS 2211-98-5 from various 3.9% w/w (was DDBSA 2211-98-5 from Chemcolour 4.3%) Raw1 surfactant acid anionic surfactant.	Similar - Sodium salt of - NICNAS AICS (listed not requiring secondary notification). EPA NZ (list shows HSR00xxxx without restriction, CCID shows acutely toxic, skin irritant corrosive to eyes, ecotoxic to aquatics & soil and harmful to vertebrates). FSANZ Food Standards Code (1.3.3.12 Permitted washing and peeling with GMP) 40 CFR 180.940 limits antimicrobial/ pesticide/ combine when ready for use, the end-use concentration is not to exceed 400 ppm. USA FDA 21 CFR 178.1010 not in excess, drained, not necessarily rinsed, not extended to dairy, limited in USA to <400 ppm acid, 25-430 ppm sodium salt, un-rinsed application.	Purity wanted per column header) Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)
Caustic soda 50% w/w CAS 1310-73-2 from various x 15.2% w/w (was Sodium hydroxide 100% CAS 1310-73-2 EPA NZ HSR001547 from Redox x 8.6%) Raw 2 Base	EPANZ Cosmetic list unreturned. NICNAS AICS human health tier 2 no 2nd notification. Has EPA NZ HSR00xxxx - in appendix. FSANZ 1.3.3.3 found as GP processing aid for food, water sufficient for function. FSANZ 1.3.1 schedule 2 unfound direct additives with GMP & unreturned (probably not precluding whey classified industrial & consumed). USAFDA21CFR 173.310 culinary steam, 184 -ingredient specified uses found GRAS with GMP 9CFR318.7 FOUND "sufficient" used in olives, brandy fats, hog and poultry scalds, margarine, wine, spirits etc. EPA genetic toxicity programme. Toxicity (before neutralisation in food) OSHA PEL 2 mg/m3 etc. & corrosive and poison by intra-peritoneal route etc.	184.1763 requires Food Chem. Codex. Internationally - various National Permissions as dairy neutraliser - refer Elsevier - mostly not permitted as per FSANZ. Purity wanted per column header with FCC7 2010-2011 GMP indicators: assay 97%, As<3 mg/kg., Na2CO3 <3%, Pb <2 mg/kg, Hg<0.1 mg/kg. FSANZ Pb<2, As<1, Heavy metals <40 mg/kg). Purity found (unfound now and 5 years prior and please add for >5% & indirect contact)
Borax pentahydrate CAS 11130-12-4 from various x 1.0% w/w from various s 1.0% w/w (was 11130-12-4 from Chemcolour x1.2%) Raw 3 mild base/preservative	NICNAS AICS listed not assessed. FDA21CFR, FSANZ FS Code, & EC food/feed biocides not found. Orica information is LD50 rat 3200-3400 mg/kg, dermal LD50 rabbits >2000 mg/kg, inhalation LC50 rats >2 mg/L. Ingestion of large doses may cause severe gastrointestinal irritation, kidney injury and may result in death from CNS depression...1995 MOH Drinking Water Standards for NZ have Maximum Allowed Value MAV in drinking water of 0.3 mg/L.	The acute toxicity is per NIOSHLD50 orl rat 2660 mg/kg, oral mouse 3450 mg/kg. These are over the 2000 mg/kg UK guideline for detergents. Purity wanted (per column header). Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)
Trilon B Powder EDTA Na4 CAS 64-02-8 from various x 0.9% w/w (was Na4EDTA 4 H2O from BASF 1.1%) Raw	EPANZ cosmetic list unreturned. NICNAS AICS human health tier 1 no 2nd notification required. EPA NZ under HSR00xxxx. SIMILAR material had 21 CFR 173. 310 .310 "boiler water additives not in excess and listed in the section). Also has registered uses as hog scald sequestrant and stabiliser for	Poison by intravenous, moderately toxic by ingestion, experimental reproductive and mutagenic effects and toxicity data is available generally and ex BASF it is not absorbed, excreted inside 24 hours, with no carcinogenic, mutagenic, geno-toxic effects

4 sequestrant	peas cereal, dressings, sausage, pies... as regulated per 21CFR172.135 (172"Food additives permitted for direct addition to food for human consumption, .135 lists permitted mg/kg limits in particular foods and uses for those foods - not dairy) E.g. to 150 mg/kg in aqueous multivitamins, 145 mg/kg in black eyed peas, 500 mg/kg in strawberry pie....., 0.1% in dry non-nutritive sweeteners (21 CFR 180.37) ...USDA 9 CFR 318.7 sufficient for purpose.	under realistic levels. with extended studies. The NOEL for NTA is 20 mg/kg, ADI 0.2 mg/kg. NZ Food Regs 1984, No 271 for steam for food tech grade & no entrained water. FSANZ FS Code 1.3.3.11 found for process & packaged water & subject to GMP. Purity wanted (per header & US FCC 7 (10-11) had Pb 10, Hg 1 mg/kg). Purity found (not found or required for negligible contact here)
Codex 8503 Aminotrimethylene phosphonic acid from various x 0.9% w/w (was 60% Briquest 301-50A CAS 6419-19-8 from Chemcolour x1.1% is 0.7%) Raw 5 Sequestrant	NICNAS AICS Listings (listed w/o concern). EPA NZ (use under appropriate group standard HSR00xxxx). FSANZ Code (Food additive 1.3.1 schedule 2 found similar (lactone) for processed foods). USA FDA 21CFR (182.6757 FOUND, GRAS with GMP as dietary supplement, nutrient, sequestrant). Other toxicity (Toxicity low by intra-venous route, LDLo intra-venous rabbit 7630 mg/kg. 173.315 & within the meaning of 172.135 direct process food additive to e.g. 150 ppm etc. FOUND. Toxicity low by intravenous route, LDLo ivn rabbit 7630 mg/kg).	Purity wanted (per header & FCC7 2010-2011GMP indicators 98-102%, Pb<2 mg/kg, reducers <0.5%). Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)
Texapon NISO UP SLDES 27% CAS 68525-24-2 got 68585-34-2 from various x 35% w/w is 9.45% w/w (was Sodium lauryl ether sulphate CAS 68585-34-2 70% from Albrite & Wilson x 10.8% is 7.6% w/w) Raw 6 surfactant	EPANZ Cosmetic Std list search unreturned. NICNAS AICS listed as not assessed. NZIoC listed registration number. USAFDA21CFR178.1010, & 178.3400 for food contact surfaces (found). CTFA found. FSANZ 1.3.3.3 may be similar	Purity wanted (per column header which refers to US FCC 7 (10-11) (entry unfound). Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)
Butyl glycol ether CAS 111-76-2 x 3.7% w/w (was Butyl cellosolve solvent CAS 111-76-2 & 107-21-1 ethylene glycol monobutyl ether from Huntsman 4.4%) Raw 7 other solvent.	AICS ok with no 2nd notification. NZIoC HSR00xxxx found ok CAS Similar material had ready alkyl C2 degradation path to glycol & this path is towards a food neg-listed alcohol. . Similar material had - Intermediate Volatility BP 171-2C. FDA 21CFR 178.1010 similar listed as food contact surface sanitiser ingredient. 40CFR 180.940 found limit "0" on contact / & utensil surfaces. FSANZ FS Code 1.3.3.3 unfound (similar found)	Purity wanted (per column header). Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)
Sodium xylene sulphonate CAS 1300-72-7 40% from Redox x5.5% % is 1% Raw 8 Surfactant	NICNAS AICS human health tier 2 no 2nd notification required. NZIoC HSR00xxxx. FDA 21 CFR 178.1010.28 found at 31-62 MG/KG with fatty acid 156-312 MG/KG (here 160 mg/kg) & ANZFA 1.3.3.11 found similar only alkarylsulphonate drained and not necessarily rinsed in USA. ANZFA similar only found as bleaching washing and peeling agent for food to 0.7 mg/kg residue level. Purity not in Food Chemicals Codex. Side effects inc eco effects appear not problematic per IDF Bull 288 BS5305 ID 9101, & 9701 listing.	Environmental effect is not a concern per IDF Bull 288, fully mineralised and low toxicity and not "limiting" in most NZ waterways. Purity wanted per column header) Purity found (unfound now and 5 years prior and low risk for <5% & indirect contact)
Water CAS 7732-18-5 from 0 x 22.9% w/w (was to 100%) Raw 9 ubiquitous	Ubiquitous & safe	
Sum of ingredients = 100% (got 100%)		
HD/GP margin pHs are 2 & 12.5. IDF 9101 guide alkalinity 0.02-0.5%, sequestrant 0.005-0.1%, surfactant 0-0.05%, sanitiser 0.015%-0.025%	pH growth ranges: B cereus 4.4-9.3, Campylobacter jejuni 4.9-9.0, C botulinum A & B 4.8-8.5 type E 5-8.5, C perfringens 5-8.9, Listeria monocytogenes 4.5-8.0, Salmonella 3.8-9,	Staph aureus 4.3-9.0, vibrio cholerae 6-11, vibrio parahaemolyticus 4.8-9, vibrio vulnificus 5-10, Yersinia enterocolitica 4.4-9.6

Table continued.	A formulation % w/w	A formulation % w/v	B formulation use low	C formulation use high	D raw use low (D=A*B)	E raw use high (E=A*C)	F residue low rinsed & drained mg/kg (F=106S/5000)	G residue use-high drained mg/kg (G=106S/300)	H ingestion mg/kg/day use-low & drain & rinse (H=1.5L*F/70kg)	I ingestion mg/kg/day use-high & drain (I=1.5L*G/70kg)
Combined formulation 100% comprises ingredients below. Carryover in 2nd table per farm model	100.000%	110.00%	0.500%	2.000%	0.55000%	2.20000%	1.100	73.333	0.0236	1.5714

Micolin LAS Dobanic acid CAS 2211-98-5 from various 3.9% w/w (was DDBSA 2211-98-5 from Chemcolour 4.3%) Raw1 surfactant acid anionic surfactant.	3.90%	4.29%	0.500%	2.000%	0.02145%	0.08580%	0.043	2.860	0.0009	0.0613
Caustic soda 50% w/w CAS 1310-73-2 from various x 15.2% w/w (was Sodium hydroxide 100% CAS 1310-73-2 EPA NZ HSR001547 from Redox x 8.6%) Raw 2 Base	15.200%	8.36%	0.500%	2.000%	0.04180%	0.16720%	0.084	5.573	0.0018	0.1194
Borax pentahydrate CAS 11130-12-4 from various x 1.0% w/w from various s 1.0% w/w (was 11130-12-4 from Chemcolour x1.2%) Raw 3 mild base/preservative	1.00%	1.10%	0.500%	2.000%	0.00550%	0.02200%	0.011	0.733	0.0002	0.0157
Trilon B Powder EDTA Na4 CAS 64-02-8 from various x 0.9% w/w (was Na4EDTA 4 H2O from BASF 1.1%) Raw 4 sequestrant	0.90%	0.99%	0.500%	2.000%	0.00495%	0.01980%	0.010	0.660	0.0002	0.0141
Codex 8503 Aminotrimethylene phosphonic acid from various x 0.9% w/w (was 60% Briquest 301-50A CAS 6419-19-8 from Chemcolour x1.1% is 0.7%) Raw 5 Sequestrant	0.90%	0.59%	0.500%	2.000%	0.00297%	0.01188%	0.006	0.396	0.0001	0.0085
Texapon NISO UP SLDES 27% CAS 68525-24-2 got 68585-34-2 from various x 35% w/w is 9.45% w/w (was Sodium lauryl ether sulphate CAS 68585-34-2 70% from Albrite & Wilson x 10.8% is 7.6% w/w) Raw 6 surfactant	35.00%	10.40%	0.500%	2.000%	0.05198%	0.20790%	0.104	6.930	0.0022	0.1485
Butyl glycol ether CAS 111-76-2 x 3.7% w/w (was Butyl cellosolve solvent CAS 111-76-2 & 107-21-1 ethylene glycol monobutyl ether from Huntsman 4.4%) Raw 7 other solvent.	3.70%	4.07%	0.500%	2.000%	0.02035%	0.08140%	0.041	2.713	0.0009	0.0581
Sodium xylene sulphonate CAS 1300-72-7 40% from Redox x5.5% % is 1% Raw 8 Surfactant	5.50%	2.42%	0.500%	2.000%	0.01210%	0.04840%	0.024	1.613	0.0005	0.0346
Water CAS 7732-18-5 from 0 x 22.9% w/w (was to 100%) Raw 9 ubiquitous	33.90%	37.29%	0.500%	2.000%	0.18645%	0.74580%	0.373	24.860	0.0080	0.5327
Sum of ingredients = 100% (got 100%)	100.000%									
HD/GP margin pHs are 2 & 12.5. IDF 9101 guide alkalinity 0.02-0.5%, sequestrant 0.005-0.1%, surfactant 0-0.05%, sanitiser 0.015%-0.025%					11.7	12.3				

17/12/2020 reference H2506

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Dear Mike Anderson,

Please find attached your assessment report for any question or suggestions and attention to any points under "status" below. The invoice and web listing should follow. Thanks for this work and have a good Christmas.

Ultrakleen HF

- Product description: alkaline foaming cleaner
- Product use: for food factories food contact surfaces non-CIP
- Status: passed renewed AsureQuality assessment \$340 + GST for 2 hours P/O 56671. Should add purity C of As at least for ingredients >5%

"Passed AsureQuality assessment for food/ beverage/ dairy factory food contact surfaces non-CIP, drained & residues minimised by e.g. potable rinse & final residue evaporated dry" H2559 with conditions. This assessment was prepared by Global Proficiency Ltd using HACCP principles to determine equivalence with food standards listed below. See <http://assessedproducts.asurequality.com>. This supports food Risk Management Programmes & other endorsements that may apply to this product include MPI regulated farm dairy approval, MPI dairy factory endorsement, MPI regulated non-dairy animal product approvals, EPA HSNO-OSH-environment approval (& previously AQIS).

Conditions:

- Used per instructions, legislation, & GMP, for food contact surfaces, non-CIP, drained & residues minimised by e.g. potable rinse & let dry. Carry-over to food should be minimised to ensure food function or composition are not affected, that residues are within applicable Maximum Residue Limits and that food legislation requirements are met.
- The assessment is subject to notification of change and expires on 11/02/2026.
- The full report is attached for supplier review and verification. The assessment is activated by countersigning & inclusion of assessment precautions / assessment statement / MPI dairy statement

Prepared by Global Proficiency for AsureQuality Ltd... 