



# Food Grade Compliance Documentation

**PRODUCT:** ADOS Food Grade Silicone Sealant  
Titania

**CODE/S:** 3314

**SIZE/S:** 300g

## THIS DOCUMENT CONTAINS:

- MSDS
- TSE/BSE statement
- NZ AsureQuality approval
- MPI approval
- TDS
- Allergen certificate



**IN CASE OF EMERGENCY CALL: 09 278 7913**

CRC INDUSTRIES NEW ZEALAND

Ph: 09 272 2700

Fax: 09 274 9696

Email: [customerservices@crc.co.nz](mailto:customerservices@crc.co.nz)

Address: 10 Highbrook Drive, East Tamaki, Auckland

26/11/2020

**NZ POISONS CENTRE 0800 764 766 | NZ EMERGENCY SERVICES: 111 - THIS IS A SUMMARY ONLY - FULL REPORT AVAILABLE**

## ADOS Food Grade Silicone Sealant

INGREDIENTS	CAS NO	%	TWA
distillates, petroleum, middle, hydrotreated	64742-46-7.	1-10	5 mg/m3
methyltri(methylethylketoxime)silane	22984-54-9	1-10	-
silica amorphous, fumed, crystalline free	112945-52-5	1-10	-

GHS	DG
	UN No: <b>Not Applicable</b> Hazchem Code: <b>Not Applicable</b> DG Class: <b>Not Applicable</b> Subsidiary Risk: <b>Not Applicable</b> Packing Group: <b>Not Applicable</b>

### PROPERTIES



Liquid. Does not mix with water. Floats on water. Combustible.

### EMERGENCY



### FIRST AID

<b>Swallowed:</b>	Rinse mouth with water.
<b>Eye:</b>	Wash with running water.
<b>Skin:</b>	Remove contaminated clothing. Wash with soap & water.
<b>Inhaled:</b>	Fresh air. Rest, keep warm.
<b>Advice To Doctor:</b>	Treat symptomatically.
<b>Fire Fighting:</b>	Foam.
<b>Spills and Disposal:</b>	Eliminate ignition sources. Absorb with dry agent. Stop leak if safe to do so. Dispose of this material and its container at hazardous or special waste collection point. This material and its container must be disposed of in a safe way. To clean the floor and all objects contaminated by this material, use water and detergent.

### HEALTH HAZARD INFORMATION

	Determined by Chemwatch using GHS/HSNO criteria Signal word: <b>Warning</b> Hazard statement(s): <b>H317</b> May cause an allergic skin reaction. <b>H442</b> Toxic to terrestrial invertebrates
	6.5B (contact), 9.4B

### PRECAUTIONS FOR USE



<b>Appropriate engineering controls:</b>	General Exhaust Ventilation adequate.
<b>Glasses:</b>	Safety Glasses. Consider chemical goggles.
<b>Gloves:</b>	PVC chemical resistant type.
<b>Respirator:</b>	Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)
<b>Storage and Transportation:</b>	Store in cool, dry, protected area. Dispose of this material and its container at hazardous or special waste collection point. Keep out of reach of children.
<b>Fire/Explosion Hazard:</b>	Toxic smoke/fumes in a fire. Dispose of this material and its container at hazardous or special waste collection point.

### SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



**X** — Must not be stored together  
**O** — May be stored together with specific preventions  
**+** — May be stored together



## **TSE/BSE Statement**

All *Food Grade* products supplied by CRC Industries New Zealand are made from synthetic or manufactured materials and do not contain any raw materials produced or derived from substances of animal origin. The manufacturing processes do not use any ingredient of animal origin nor do the products come in contact with animal products during storage and transportation.

We declare that our products are Dioxin Free.

All products produced by CRC Industries NZ are free from:

- Transmissible Spongiform Encephalopathy (TSE) and
- Bovine Spongiform Encephalopathy (BSE)

A handwritten signature in black ink, appearing to read 'M. Walbran', is positioned above the printed name.

**Murray Walbran**  
Managing Director  
CRC Industries New Zealand  
Auckland, New Zealand

Issued: September 1, 2020



***The Professional's Choice***

31/05/2016 H3636

Global Proficiency Ltd for AsureQuality Ltd,  
Ruakura Research Centre, Hamilton East,  
P O Box 20474 Hamilton.

CRC Industries Ltd, 10 Highbrook Drive East Tamaki Auckland  
Phone 09 272 2700, fax 09 2749696. Contact John Sokolich  
email sokolichj@crc.co.nz

To whom it may concern,

**Ados Food Grade Silicone Sealant Titania**

- Product description: sealant (with fungicide)
- Product use: food area use

**Passed AsureQuality assessment for food/beverage/dairy factory food areas non-contact H3636 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, GMP, & legislation as sealants for non-contact in Cool Room/ Food Areas non-contact but may be near food.
- The assessment is subject to notification of change (e.g. in formulation, raw materials or instructions) and expires on 31/05/2021).
- The full report is attached for supplier review and verification. The assessment is activated by countersigning.

Prepared by Global Proficiency for AsureQuality Ltd...



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 (MPI C82 & extends existing AsureQuality assessment).
- Food safety (is by food listings/ safety data for raw material monomers or components of polymer partly from EPA NZ. Raw 8 may be negatively listed on a food packaging list but level is low & this is non-contact).
- QA & QC (ISO 9000 etc. is not required in this application. Micro safety is per antifungal and SGS test data on resistance to fungal growth for 28 days for Aspergillus niger ATCC 9642, Penicillium pinophilum ATCC 11797, Chaetomium globosum ATCC 6205, Gliocladium virens ATCC 9645, & Aureobasidium pullulans ATCC 15233).
- Instructions
- (Label CRC Ados. Food Grade Silicone Sealant neutral cure, Titania . AsureQuality approved food/ beverage/ dairy. MPI approved C82 non-dairy animal products packaging with non-contact. 100% Silicone. Mould & mildew resistant. Indoor & outdoor use. Low odour. UV resistant. Ideal for refrigerated rooms or commercial kitchens. . A low modulus silicone joint sealant with 100% neutral cure. This highly flexible sealant contains additives to resist mould & mildew, with excellent adhesion to plastics, ceramics, stainless steel, metals & glass. For use in food, pharmaceutical & other clean environments where MPI & NZ AsureQuality certification is required, ideal for refrigerated rooms or household & commercial kitchens. Use directions are fully detailed & more detail for wet surfaces. Warning causes dye & skin irritation, avoid breathing vapour, use with adequate ventilation, wear suitable protective clothes, gloves & eye protection & wash hands thoroughly after handling. Panels completed for first aid and company contacts. Food grade sealant will seal on non-porous surfaces such as glass, metal, & tiles but adhesion to porous surfaces, cement & timber may not be possible if wet)
- Technical Reference previous 01/06/2004 (On mildew prevention with sanitary silicone sealant - provides detailed information).
- Technical data sheet previous (provides technical data on the product & need for periodic replacement because of slow depletion of anti-microbial).
- MSDS previous (HSNO - hazardous substance. Signal warning. H317 May cause allergic skin reaction. Ados sealant toxicity data not available)
- Unwanted effects (Are not expected per food safety data, reported low odour, fungal resistance and distancing for non-contact in food areas).
- Sealant performance (is beyond the scope of this report).

**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)

**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 (MPI C82 & extends existing AsureQuality assessment).

**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**

(CRC Industries Ltd) Ados Food Grade Silicone Sealant Titania H3636 31-05-2016	Registrations column. Scope: NZ checks (NICNAS AICS/ EPA NZIoC, 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	Purity column PER NSF CROSS-CREDIT equivalent to normal 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.
NACCP analysis of instructions/ GMP	Instructions (Label CRC Ados. Food Grade Silicone Sealant neutral cure, Titania . AsureQuality approved food/ beverage/ dairy. MPI approved C82 non-dairy animal products packaging with non-contact. 100% Silicone. Mould & mildew resistant. Indoor & outdoor use. Low odour. UV resistant. Ideal for refrigerated rooms or commercial kitchens. . A low modulus silicone joint sealant with 100% neutral cure. This highly flexible sealant contains additives to resist mould & mildew, with excellent adhesion to plastics, ceramics, stainless steel, metals & glass. For use in food, pharmaceutical & other clean environments where MPI & NZ AsureQuality certification is required, ideal for refrigerated rooms or household & commercial kitchens. Use directions are fully detailed & more detail for wet surfaces. Warning causes dye & skin irritation, avoid breathing vapour, use with adequate ventilation, wear suitable protective clothes, gloves & eye protection & wash hands thoroughly after handling. Panels completed for first aid and company contacts. Food grade sealant will seal on non-porous surfaces such as glass, metal, & tiles but adhesion to porous surfaces, cement & timber may not be possible if wet)	Technical Reference previous 01/06/2004 (On mildew prevention with sanitary silicone sealant - provides detailed information). Technical data sheet previous (provides technical data on the product & need for periodic replacement because of slow depletion of anti-microbial). MSDS previous (HSNO - hazardous substance. Signal warning. H317 May cause allergic skin reaction. Ados sealant toxicity data not available)
HACCP analysis of other aspects	Information status & prior registrations (MPI C82 & extends existing AsureQuality assessment). . Food safety (is by food listings/ safety data for raw material monomers or components of polymer partly from EPA NZ. Raw 8 may be negatively listed on a food packaging list but level is low &	Unwanted effects (Are not expected per food safety data, reported low odour, fungal resistance and distancing for non-contact in food areas). Sealant performance (is beyond the scope of this report).

	this is non-contact). QA & QC (ISO 9000 etc is not required in this application. Micro safety is per antifungal and SGS test data on resistance to fungal growth for 28 days for Aspergillus niger ATCC 9642, Penicilium pinophilum ATCC 11797, Chaetomium globosum ATCC 6205, Gliocladium virens ATCC 9645, & Aureobasidium pullulans ATCC 15233).	
Standard: Old Dairy Industry Standard coatings checklist for which the critical element here is "does not release toxic material" as addressed in paragraphs below.	Coatings Standard for non-contact application (per previous MQM1 Approvals Manual lists): Monitor and advise any unsatisfactory performance (to authors). Clean-ability: able to be adequately cleaned by normal procedures (for that area of the premises) without damage to the surface. Free from cracks, crevices and have no soil collection areas. Resistant to water and water vapour. Resistant (including sheet wallboard jointers) with a low rate of moisture movement. Resistant to foods e.g. milk, cream, milk fat, whey, lactic acid, etc.	Resistant to chemicals (to 10% Sodium hydroxide, nitric acid, phosphoric acid, sulphuric acid, iodophors, QAC, etc. Toxicity: does not release toxic material under finished use conditions. Durability to (chipping, flaking, or delamination. (Normal) heat and water, Machinery vibration. And regular cleaning and sanitising. Resistant to impact, to thermal shock etc. (including jointers to NZDRI criteria +/- 5mm or if climate controlled +/- 2mm). Accounting for combinations of dry/wet, hot/cold, and severe conditions. Additional general assessment checks
Raw 1 Polymer	NICNAS AICS secondary notification n/a. EPA NZ listed & HSR003459 6.4A eye irritant, 9.4A very eco-toxic to terrestrial invertebrates. Man transient conjunctival irritation. Similar material has FSANZ FS Code 1.3.3.9 permitted lubricants, release and anti-stick agents & food residue within GMP & 1.3.3 unfound & 1.3.34 antifoam only found. 21CFR 173.340 defoamer 300-1050 cst/srC to 10 ppm not milk. 178.3570 similarly >300 cst addition to food not to exceed 1 ppm/ 21 CFR 181.28 prior sanctioned food ingredients release agents 21 CFR 178.3570 300-600 cst/ 25C. NSF non-food programmed similar Silicone fluid AK350 & Wacker Silicone Fluid AD350, NSF H1 #135730, 135731.	Purity wanted (per column header). Purity found (Unfound & unrequired for this application).
Raw 2 Polymer	NICNAS AICS secondary notification n/a. EPA NZ listed & HSR003036 9.4A very eco-toxic to terrestrial invertebrates. Material has FSANZ FS Code 1.3.3.9 permitted lubricants, release and anti-stick agents & food residue within GMP & 1.3.3 unfound & 1.3.34 antifoam only found. 21CFR 173.340 de-foamer 300-1050 cst/srC to 10 ppm not milk. 178.3570 similarly >300 cst addition to food not to exceed 1 ppm/ 21 CFR 181.28 prior sanctioned food ingredients release agents 21 CFR 178.3570 300-600 cst/ 25C. NSF non-food programmed similar Silicone fluid AK350 & Wacker Silicone Fluid AD350, NSF H1 #135730, 135731.	Purity wanted (per column header). Purity found (Unfound & unrequired for this application).
Raw 3 Paraffinic HC	NICNAS AICS listed as not assessed. EPA NZ under Group Standard. Similar material This is per ANHMRC. FSANZ FS Code 1.3.1 schedule 2 SIMILAR FOUND & crosses to 1.3.3.3 and 1.3.3.11 (where NOT FOUND). NZDWS MAV NOT FOUND. 21CFR FOUND as direct food additive and processing aid.	Purity wanted (is per the column header) Purity found (is per aromatics loss by hydro-treating).
Raw 4 filler	EPA NZ under Group Standard FDA21CFR172.480 (178.3570 equiv.) & FSANZ FS Code 1.3.1 schedule 2 direct ingredient for processed food. Also 172.480	Purity wanted (per column header). Purity found (Unfound & unrequired for this application).
Raw 5 curing agent	EPA NZ under Group Standard & w/o toxicity data & FDA 21 CFR & FSAN Z FS Code unfound	Purity wanted (per column header). Purity found (Unfound & unrequired for this application).
Raw 6 curing agent	EPA NZ under Group Standard & w/o toxicity data. FDA21CFR & FSANZ FS Code unfound	Purity wanted (per column header). Purity found (Unfound & unrequired for this application).
N Raw 7 sealant	EPA NZ under no HSR003831 w/o exclusions. 9.1C harmful in the aquatic environment. FDA21CFR & FSANZ FS Code unfound	Purity wanted (per column header). Purity found (Unfound & unrequired for this application).
Raw 8 antifungal	EPA NZ under no HSR003610 w/o exclusions. 6/1B acutely toxic (inhalation and oral). 6.1C Acutely toxic (skin) 6.3A Irritating to skin. 6.4A Irritating to eyes. 6.9A oral toxicity to human target organs/ systems. 9.1A Very eco-toxic to aquatics. 9.3A Very eco-toxic to terrestrial vertebrates. FDA21CFR & FSANZ FS Code unfound WHO report NOAELs for mono- and dioctyl-tin have been determined to be 0.87 and 0.23 mg/kg body weight per day, respectively, although the value for monoocetyl tin is an estimate, because the study was performed using a mixture. Other information suggests that dioctyltin is the more immune-toxic of the two compounds. Brief	Of the reported unintentional occupational exposures, none has an estimate of exposure concentration. Exposure was largely via the inhalation route, with some possibility of dermal exposure. Neurological effects were the most commonly reported, and these can persist for long periods. Reliable lifetime TDI values cannot be derived, since long-term studies at the appropriate doses and in the appropriate species are not available. Medium-term exposure TDIs for the estimation of risk were estimated (as the chlorides) as 0.0012 mg/kg body weight for mono-methyl-tin and di-methyl-tin based on neurotoxicity,

	summaries were available for unpublished long-term studies for some of the organo-tins under consideration. These showed no carcinogenicity for mixtures of mono- and dimethyl-tins in rats and mono- or dioctyl-tins in rats or dogs except for a single study on a mixture of mono- and dioctyltin chlorides. This showed significantly increased frequency of thymic lymphomas in female rats only at the 150 mg/kg diet dose. Significant increases were seen in the incidence of generalized malignant lymphomas in males of the 50 and 150 mg/kg groups, but only in females at the highest dose. Very few data are available on the effects of organo-tins in humans.	0.003 mg/kg body weight for dibutyl-tin based on immune-toxicity, and 0.002 mg/kg body weight for dioctyltin, also based on immune-toxicity. No reliable TDI could be derived for monobutyl-tin or monoocetyl
Pathogens needing to be controlled are listed here with pH growth ranges	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

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**12 The formulation in confidence follows & is not for public circulation**

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NACCP analysis of instructions/ GMP	Instructions (Label CRC Ados. Food Grade Silicone Sealant neutral cure, Titania . AsureQuality approved food/ beverage/ dairy. MPI approved C82 non-dairy animal products packaging with non-contact. 100% Silicone. Mould & mildew resistant. Indoor & outdoor use. Low odour. UV resistant. Ideal for refrigerated rooms or commercial kitchens. . A low modulus silicone joint sealant with 100% neutral cure. This highly flexible sealant contains additives to resist mould & mildew, with excellent adhesion to plastics, ceramics, stainless steel, metals & glass. For use in food, pharmaceutical & other clean environments where MPI & NZ AsureQuality certification is required, ideal for refrigerated rooms or household & commercial kitchens. Use directions are fully detailed & more detail for wet surfaces. Warning causes dye & skin irritation, avoid breathing vapour, use with adequate ventilation, wear suitable protective clothes, gloves & eye protection & wash hands thoroughly after handling. Panels completed for first aid and company contacts. Food grade sealant will seal on non-porous surfaces such as glass, metal, & tiles but adhesion to porous surfaces, cement & timber may not be possible if wet)	Technical Reference previous 01/06/2004 (On mildew prevention with sanitary silicone sealant - provides detailed information). Technical data sheet previous (provides technical data on the product & need for periodic replacement because of slow depletion of anti-microbial). MSDS previous (HSNO - hazardous substance. Signal warning. H317 May cause allergic skin reaction. Ados sealant toxicity data not available)
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Standard: Old Dairy Industry Standard coatings checklist for which the critical element here is "does not release toxic material" ..as addressed in paragraphs below.	Coatings Standard for non-contact application (per previous MQM1 Approvals Manual lists): Monitor and advise any unsatisfactory performance (to authors). Clean-ability: able to be adequately cleaned by normal procedures (for that area of the premises) without damage to the surface. Free from cracks, crevices and have no soil collection areas. Resistant to water and water vapour. Resistant (including sheet wallboard jointers) with a low rate of moisture movement. Resistant to foods e.g. milk, cream, milk fat, whey, lactic acid, etc.	Resistant to chemicals (to 10% Sodium hydroxide, nitric acid, phosphoric acid, sulphuric acid, Iodophors, QAC, etc. Toxicity: does not release toxic material under finished use conditions. Durability to (chipping, flaking, or delamination. (Normal) heat and water, Machinery vibration. And regular cleaning and sanitising. Resistant to impact, to thermal shock etc. (including jointers to NZDRI criteria +/- 5mm or if climate controlled +/- 2mm).Accounting for combinations of dry/wet, hot/cold, and severe conditions. Additional general assessment checks
Hydroxy-terminated polydimethylsiloxane CAS 70131-67-8 from Vital Technica 65% Raw 1 Polymer	NICNAS AICS secondary notification n/a. EPA NZ listed & HSR003459 6.4A eye irritant, 9.4A very eco-toxic to terrestrial invertebrates. Man transient conjunctival irritation. Similar material has FSANZ FS Code 1.3.3.9 permitted lubricants, release and anti-stick agents & food residue within GMP & 1.3.3 unbound & 1.3.34 antifoam only found. 21CFR 173.340 defoamer 300-1050 cst/srC to 10 ppm not milk. 178.3570 similarly >300 cst addition to food not to exceed 1 ppm/ 21 CFR 181.28 prior sanctioned food ingredients release agents 21 CFR 178.3570 300-600 cst/ 25C. NSF non-food programmed similar Silicone fluid AK350 & Wacker Silicone Fluid AD350, NSF H1 #135730, 135731.	Purity wanted (per column header). Purity found (Unfound & un-required for this application).
Polydimethylsiloxane CAS 63148-62-9 from Vital Technica 15% Raw 2 Polymer	NICNAS AICS secondary notification n/a. EPA NZ listed & HSR003036 9.4A very eco-toxic to terrestrial invertebrates. Material has FSANZ FS	Purity wanted (per column header). Purity found (Unfound & un-required for this application).

	Code 1.3.3.9 permitted lubricants, release and anti-stick agents & food residue within GMP & 1.3.3 unfound & 1.3.34 antifoam only found. 21CFR 173.340 de-foamer 300-1050 cst/srC to 10 ppm not milk. 178.3570 similarly >300 cst addition to food not to exceed 1 ppm/ 21 CFR 181.28 prior sanctioned food ingredients release agents 21 CFR 178.3570 300-600 cst/ 25C. NSF non-food programmed similar Silicone fluid AK350 & Wacker Silicone Fluid AD350, NSF H1 #135730, 135731.	
Hydrotreated middle petroleum distillate Low odour paraffin solvent CAS 64742-46-7 from Vital Technica 5% Raw 3 Paraffinic HC	NICNAS AICS listed as not assessed. EPA NZ under Group Standard. Similar material This is per ANHMRC. FSANZ FS Code 1.3.1 schedule 2 SIMILAR FOUND & crosses to 1.3.3.3 and 1.3.3.11 (where NOT FOUND). NZDWS MAV NOT FOUND. 21CFR FOUND as direct food additive and processing aid.	Purity wanted (is per the column header) Purity found (is per aromatics loss by hydro-treating).
Fumed silica Silicon dioxide CAS 112945-52-5 Orisil 200 from Vital Technica Raw 4 filler	EPA NZ under Group Standard FDA21CFR172.480 (178.3570 equiv.) & FSANZ FS Code 1.3.1 schedule 2 direct ingredient for processed food. Also 172.480	Purity wanted (per column header). Purity found (Unfound & unrequired for this application).
Methyltris(ethylmethylketoxime)silane CAS 22984-54-9 from Vital Technica Raw 5 curing agent	EPA NZ under Group Standard & w/o toxicity data & FDA 21 CFR & FSAN Z FS Code unfound	Purity wanted (per column header). Purity found (Unfound & unrequired for this application).
Vinyltris(ethylmethylketoxime)silane CAS 2224-33-1 from Vital Technica Raw 6 curing agent	EPA NZ under Group Standard & w/o toxicity data. FDA21CFR & FSANZ FS Code unfound	Purity wanted (per column header). Purity found (Unfound & unrequired for this application).
N-(2-aminomethyl)-3-aminopropyl-trimethoxysilane CAS 1760-24-3 from Vital Technica Raw 7 sealat	EPA NZ under no HSR003831 w/o exclusions. 9.1C harmful in the aquatic environment. FDA21CFR & FSANZ FS Code unfound	Purity wanted (per column header). Purity found (Unfound & unrequired for this application).
Dibutyl Tin Dilaurate CAS 77-58-7 from Vital Technica 0.34% Raw 8 carrier/other	EPA NZ under no HSR003610 w/o exclusions. 6/1B acutely toxic (inhalation and oral). 6.1C Acutely toxic (skin) 6.3A Irritating to skin. 6.4A Irritating to eyes. 6.9A oral toxicity to human target organs/ systems. 9.1A Very eco-toxic to aquatics. 9.3A Very eco-toxic to terrestrial vertebrates. FDA21CFR & FSANZ FS Code unfound WHO report NOAELs for mono- and dioctyltin have been determined to be 0.87 and 0.23 mg/kg body weight per day, respectively, although the value for monoctyltin is an estimate, because the study was performed using a mixture. Other information suggests that dioctyltin is the more immunotoxic of the two compounds. Brief summaries were available for unpublished long-term studies for some of the organotins under consideration. These showed no carcinogenicity for mixtures of mono- and dimethyltins in rats and mono- or dioctyltins in rats or dogs except for a single study on a mixture of mono- and dioctyltin chlorides. This showed significantly increased frequency of thymic lymphomas in female rats only at the 150 mg/kg diet dose. Significant increases were seen in the incidence of generalized malignant lymphomas in males of the 50 and 150 mg/kg groups, but only in females at the highest dose. Very few data are available on the effects of organotins in humans.	Of the reported unintentional occupational exposures, none has an estimate of exposure concentration. Exposure was largely via the inhalation route, with some possibility of dermal exposure. Neurological effects were the most commonly reported, and these can persist for long periods. Reliable lifetime TDI values cannot be derived, since long-term studies at the appropriate doses and in the appropriate species are not available. Medium-term exposure TDIs for the estimation of risk were estimated (as the chlorides) as 0.0012 mg/kg body weight for mono-methyltin and dimethyltin based on neurotoxicity, 0.003 mg/kg body weight for dibutyltin based on immunotoxicity, and 0.002 mg/kg body weight for dioctyltin, also based on immunotoxicity. No reliable TDI could be derived for monobutyltin or monoctyltin Cool Room/ Food Areas (near food e.g. 300 mm)
Pathogens needing to be controlled are listed here with pH growth ranges	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

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31/05/2016 H3636

CRC Industries Ltd, 10 Highbrook Drive East Tamaki Auckland  
Phone 09 272 2700, fax 09 2749696. Contact John Sokolich  
email sokolichj@crc.co.nz

Global Proficiency Ltd for AsureQuality Ltd,  
Ruakura Research Centre, Hamilton East,  
P O Box 20474 Hamilton.

Dear John Sokolich,

Please find attached the assessment report for any questions or corrections and the invoice and web listing should follow. This is a cover letter and not part of the report.

**Ados Food Grade Silicone Sealant Titania**

- Product description: sealant (with fungicide)
- Product use: food area use
- Status: This passed extension of AsureQuality assessment for factories cost \$125 + GST 0:50 hour on 31/05/2016. The antimicrobial does have prohibitions but we added WHO data).

**Passed AsureQuality assessment for food/beverage/dairy factory food areas non-contact H3636 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, GMP, & legislation as sealants for non-contact in Cool Room/ Food Areas non-contact but may be near food.
- The assessment is subject to notification of change (e.g. in formulation, raw materials or instructions) and expires on 31/05/2021).
- The full report is attached for supplier review and verification. The assessment is activated by countersigning.

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

03 JUN 2016



1 June 2016

CRC Industries New Zealand  
PO Box 204267  
Highbrook  
Manukau 2161

**Trade Name:** Ados Food Grade Sealant Titania  
**Description:** Sealant  
**Code:** C 82

**Approvals:**

This compound is approved for use in premises processing all animal product except dairy, operating under the Animal products Act regime.

This approval is under the following regulations and notices, subject to the conditions stated in this approval:

1. Regulation 11(4)(b) of the Animal Products Regulations 2000 and Regulation 18(4)(b) of the Animal Products (Regulated Control Scheme – Limited Processing Fishing Vessels) Regulations 2001
2. Clause 4(1) of the Animal Products (Specifications for Limited Processing Fishing Vessels) Notice 2005, Clause 3(1) of the Animal Products (Specifications for Products Intended for Human Consumption) Notice 2004, clause 4(1) of the Animal Products (Specifications for Products Intended for Animal Consumption) Notice 2006

**Conditions:**

1. This material is for packaging only and must not come in contact with edible products.

This approval may be withdrawn at any time due to unapproved directions for use, or unsatisfactory performance, or any change in product formulation. The Branch Planning, Systems & Support Directorate must be notified if the holder of this approval wishes to transfer their products to another entity.

The product must be used in accordance with the manufacturer's instructions and specifications. The label may include a statement to the effect that the product is approved for use in premises registered under the Animal Products Act regime. Any statements made, however, must include the approval code and must be limited to the following unless otherwise specified:

MPI Approved C 82 (All animal product except dairy)

Note: Former NZFSA statements must be removed from your labels.

**This approval must not be used as a Ministry for Primary Industries (MPI) endorsement of any claim made for the product by the manufacturer.**

This approval will remain valid until 31 October 2021 unless the approval is revoked by notice in writing at an earlier stage.

Any queries regarding this approval should be directed to MPI Approvals by either telephone on 04 894 2550 or by e-mail at [approvals@mpi.govt.nz](mailto:approvals@mpi.govt.nz).

Yours sincerely,



Maree Zinzley  
Manager Approvals Operations  
Branch Planning Systems and Support

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**Ministry for Primary Industries**  
Manatū Ahu Matua



Date: 1 June 2016

**Official Receipt G.S.T. 64-558-838**

Received from: **CRC Industries New Zealand**

Maintenance compound approval fee for: **Ados Food Grade Sealant Titania**

Sum of: **\$178.25**

MPI General Ledger Code: 1640 2201

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CRC Industries NZ, Auckland NZ

## **I. Product Description**

ADOS Food Grade Sealant is a low modulus silicone joint sealant with 100% neutral cure. This highly flexible sealant contains additives to resist mould and mildew, with excellent adhesion to plastics, ceramics, stainless steel, metals and glass. The chemically stable formulations show little change in physical properties after exposure to moisture and temperature extremes.

It is specially formulated for use in food, pharmaceutical and other clean environments where MPI certification is required, ideal for refrigerated rooms or household and other commercial uses.

## **II. Features & Benefits**

- MPI Approved C82
- NZ AsureQuality Approved
- Highly flexible with excellent adhesion
- Works on Wet & Dry Surfaces
- Mould & Mildew resistant
- Waterproof seal

## **III. Uses**

- Ideal for use in food, pharmaceutical and other clean environments where MPI certification is required
- Excellent adhesion to plastics, ceramics, stainless steel, metals, glass, aluminum, kitchen and bathroom fixtures, porcelain, showers, sinks, tiles

## **IV. Application and Directions**

### **Directions:**

- Surface must be clean and dry before application.
- Use mechanical or solvent cleaning. Do not use soap or detergent.
- Use masking tape to cover surfaces and joints to simplify cleaning.
- If surface requires primer, the primer must be dry before applying sealant.
- Before placing cartridge in application gun, slice nozzle at 45 degree angle at desired bead size.
- Press nozzle against surface and apply sealant.
- Tool to eliminate all voids within 5 minutes of applying sealant. Tack-free time is 1 hour.
- Sealant will fully cure in 72 hours.
- Remove masking tape within 1 hour. Any uncured sealant can be cleaned up with mineral turpentine.
- Cured product can be removed with *ADOS Silicone Remover*.

### **Wet Materials:**

- Remove surface water as much as possible.
- Keep nozzle close to surface so extruding sealant immediately contacts the surface.
- Tool the sealant immediately into joint
- Adhesion will improve on drying. Where adhesion is difficult, wipe the surface with solvent and apply sealant to partially dry substrate.
- *Food Grade Sealant* will seal on non-porous surfaces such as glass, metal and tiles, but adhesion to porous substances such as cement and timber may not be possible while wet.



CRC Industries NZ, Auckland NZ

**V. Typical Properties and Characteristics**

**Physical Properties & Performance Characteristics:**

<b>Composition</b>	Silicone polymer
<b>Curing Method</b>	Neutral cure
<b>Colour</b>	Greyish – White
<b>Service Temperatures</b>	-50°C to +150°C
<b>Hardness (Shore A)</b>	17
<b>Slump</b>	Nil
<b>Tensile Strength</b>	≥ 0.8N/mm <sup>2</sup>
<b>Dynamic Joint Movement</b>	± 20%
<b>Elongation</b>	≥ 250%
<b>Tooling Time</b>	10 minutes
<b>Tack Free Time</b>	30 minutes
<b>Cure Time (5mm, 20°C / 55% RH)</b>	2 days

**Estimating Requirements – linear metres per cartridge for various joint dimensions:**

Depth mm	Width mm						
	3.3	6.4	9.7	12.7	16.0	19.2	25.4
3.3	29.7	14.88	9.93	7.44	5.94	4.97	3.72
4.9		9.93	6.64	4.97	3.96	3.31	2.48
6.4		7.42	4.97	3.72	2.97	2.49	1.86
9.7			3.31	2.48	1.98	1.64	1.23

**VI. Package Description**

**Part Number**                      **Size**  
 3314                                      300GM Cartridge

**VII. Special Precautions**

**General:**

Uncured sealant may cause skin, eye and respiratory system irritation.  
 Use only in well ventilated areas.  
 Use appropriate personal protection to avoid contact with skin and eyes.



CRC Industries NZ, Auckland NZ

**First Aid:**

In case of eye contact or irritation, flush eye immediately with running water for 15 minutes and get medical attention.

In case of skin contact, wash affected areas with hand cleaner followed by soap and water. Product releases acetic during application and curing. For further health and safety information consult current Material Safety Data Sheet.

Refer to Material Safety Data Sheet for more details.

**TECHNICAL DATA SHEET** Version **05/2016**

**PRODUCT WARRANTY:** CRC offers a conditional warranty of this product for the period of 2 years from the date of manufacture.

**DISCLAIMER:** All information on this data sheet is based on testing by CRC Industries NZ. All products should be tested for suitability on a particular application prior to actual use. CRC Industries makes no representations or warranties of any kind concerning this data.



CRC Industries NZ  
Auckland NZ

## ALLERGEN CERTIFICATE

**Date:** July 28<sup>th</sup>, 2020

**Product Number:** 3312, 3310, 3314

**Product Name:** ADOS Food Grade Silicone Sealant

The Australia New Zealand Food Safety Code requires the identification of allergens present in food products. The presence of allergens in food grade processing aids including lubricants must be declared.

CRC Industries provides the following allergen information for the product(s) listed above.

Allergen	Present in Product	Present on Same Production Line	Present in Facility
Milk Products	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Soy Products	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Peanut Products	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Egg Products	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Tree Nut Products	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Sesame Seed	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Mustard Seed	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Bee Pollen / Propolis	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Seafood and Shellfish	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Sulphites	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Buckwheat	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Celery	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Cereal or Gluten Products	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Lupin	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Royal Jelly	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Mango	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Peach	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Pork	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Tomato	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No
Latex	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes / <input checked="" type="checkbox"/> No

This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate.

For more information, please contact our Technical Service Department at 09 2722700.