



**PAPAIOEA**  
**PALMERSTON**  
**NORTH**  
**CITY**

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# **PALMERSTON NORTH CITY COUNCIL**

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**ATTACHMENTS**  
**PLANNING & STRATEGY**  
**COMMITTEE**  
**UNDER SEPARATE COVER**

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**9AM, WEDNESDAY 9 FEBRUARY 2022**  
**COUNCIL CHAMBER, FIRST FLOOR, CIVIC ADMINISTRATION BUILDING**  
**32 THE SQUARE, PALMERSTON NORTH**

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## **PLANNING & STRATEGY COMMITTEE MEETING**

9 February 2022

**Under Separate Cover**

**8. Draft Trade Waste Bylaw 2022 - Summary of Submissions**

2. Draft Trade Waste Bylaw Submissions

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<b>Submission Number</b>	<b>Submitter</b>
1	Guy Middlemiss - Plant and Food Research
2	Paul Woodhead
3	Tanin Thipcharoen - Bangkok Thai Restaurant
4	Sayed Ayyad Rahmani - Afghan Darbar Restaurant
5	Chris Teo-Sherrell
6	Jennifer Leadley New Zealand Trade and Industrial Forum Inc.
7	Sophie Brocklesby - The Fuel Companies (Z Energy Ltd, BP Oil NZ Ltd, Mobil Oil NZ Ltd)

**From:** Submission  
**Subject:** FW: Draft Trade Waste Bylaw 2022 Submission

<b>Your contact details</b>
<b>Name</b> guy middlemiss
<b>Organisation</b> Plant and Food Research
<b>Hearing</b>
<b>Would you like to speak to Council in support of your submission?</b> No
<b>Controlled trade waste</b>
We are proposing creating a new category of trade waste (controlled trade waste) where the discharge complies with all the permitted characteristics except for the volume. Controlled trade waste dischargers would be charged for every m3 of trade waste they discharge. I support this
<b>Comments</b>
<b>Permanent sink screens</b>
We are proposing to require installing sink screens on sinks in food premises where repeated complaints of odour arise from food waste being caught in a grease interceptor. I support this
<b>Comments</b>
<b>Penalty charges</b>
We are proposing to clarify that a trade waste consent can include conditions prescribing penalty charges for exceeding the physical or chemical characteristic limits set in an individual consent. I support this
<b>Comments</b>
<b>Tankered waste</b>

1-2

We are proposing to update the requirement for certification, changing from WasteMINZ to the NZ Trade and Industrial Waters Forum. We are also proposing to change the requirements to allow a tankered waste collector to hold either a resource consent or a Certificate of Registration for Offensive Trade.

I support this

Comments

**Timeframe for considering consent applications**

We are proposing to require applications to renew trade waste consents to be received eight weeks before expiry, to ensure there is sufficient time to review the application. Applications received by this time would be extended if necessary to allow the application to be reviewed. Applications not received by this time may not be renewed before expiry, meaning the trade waste discharge would have to cease until a new consent was issued.

I support this

Comments

It would be very helpful if PNCC could/would send a reminder for renewals.

**General comments**

Please note here any general comments you may have about the draft Trade Waste Bylaw 2022.

**From:** Submission  
**Subject:** FW: Draft Trade Waste Bylaw 2022 Submission

<b>Your contact details</b>
<b>Name</b> Paul Woodhead
<b>Organisation</b>
<b>Hearing</b>
<b>Would you like to speak to Council in support of your submission?</b> No
<b>Controlled trade waste</b>
We are proposing creating a new category of trade waste (controlled trade waste) where the discharge complies with all the permitted characteristics except for the volume. Controlled trade waste dischargers would be charged for every m3 of trade waste they discharge. I support this
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2-2

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I support this

Comments

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I support this

Comments

**General comments**

Please note here any general comments you may have about the draft Trade Waste Bylaw 2022.

**From:** Submission  
**Subject:** FW: Draft Trade Waste Bylaw 2022 Submission

<b>Your contact details</b>
<b>Name</b> Tanin Thipcharoen
<b>Organisation</b> Bangkok Thai Restaurant
<b>Hearing</b>
<b>Would you like to speak to Council in support of your submission?</b> No
<b>Controlled trade waste</b>
<b>We are proposing creating a new category of trade waste (controlled trade waste) where the discharge complies with all the permitted characteristics except for the volume. Controlled trade waste dischargers would be charged for every m3 of trade waste they discharge.</b> I support this
<b>Comments</b>
<b>Permanent sink screens</b>
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<b>Comments</b>
<b>Penalty charges</b>
<b>We are proposing to clarify that a trade waste consent can include conditions prescribing penalty charges for exceeding the physical or chemical characteristic limits set in an individual consent.</b> I don't know/no opinion
<b>Comments</b>
<b>Tankered waste</b>

3-2

We are proposing to update the requirement for certification, changing from WasteMINZ to the NZ Trade and Industrial Waters Forum. We are also proposing to change the requirements to allow a tankered waste collector to hold either a resource consent or a Certificate of Registration for Offensive Trade.

I don't know/no opinion

Comments

**Timeframe for considering consent applications**

We are proposing to require applications to renew trade waste consents to be received eight weeks before expiry, to ensure there is sufficient time to review the application. Applications received by this time would be extended if necessary to allow the application to be reviewed. Applications not received by this time may not be renewed before expiry, meaning the trade waste discharge would have to cease until a new consent was issued.

I support this

Comments

**General comments**

Please note here any general comments you may have about the draft Trade Waste Bylaw 2022.

# PALMERSTON NORTH CITY COUNCIL DRAFT TRADE WASTE BYLAW 2022

## SUBMISSION FORM

Your Contact Details	
Full name	Sayed Ayyad Rahmani
Organisation (if applicable)	Owner (afghan darbar restaurant)
Postal Address	
	New Zealand
Email	Phone
Please note, as required by legislation, your submission (including contact details provided on the submission form), will be available to the public and media and on the Council website as part of the decision-making process unless you request that these details be kept private. If you wish to keep your contact details confidential, please tick this box.	
	<input type="checkbox"/> Yes

Submissions hearings are expected to take place in February 2022. Do you want to speak to the Council in support of your submission?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If you would like to speak to your submission, please ensure the contact details section of this form is completed and we'll be in touch with you to arrange a time for you to be heard.

### MAKING YOUR SUBMISSION

You can find details about the draft Trade Waste Bylaw, along with the reasons for making these proposals, in the Statement of Proposal. Go to [pncc.govt.nz/tradewaste](http://pncc.govt.nz/tradewaste) to download the document. There is also an online submission form if you would prefer to make a submission online.

Submissions don't have to be long or complicated. If there is something about the draft Bylaw which you like and want to support, or that you think needs to be changed, just write down what you think and why. If you need to use more than one sheet of paper, please attach any additional pages to this form.

Please send your submission:

**By mail** Draft Trade Waste Bylaw 2022 Submissions, Democracy and Governance Team,  
Palmerston North City Council, Private Bag 11034, Palmerston North 4442

**In person** Palmerston North City Council Customer Service Centre, 32 The Square, Palmerston North

**By email** [submission@pncc.govt.nz](mailto:submission@pncc.govt.nz) (write Draft Trade Waste Bylaw 2022 Submissions in the subject)

**By phone** 06 356 8199

Controlled Trade Waste		
We are proposing creating a new category of trade waste (Controlled Trade Waste) where the discharge complies with all the permitted characteristics except for the volume. Controlled Trade Waste dischargers would be charged for every m <sup>3</sup> of trade waste they discharge.		
<input checked="" type="checkbox"/> I support this	<input type="checkbox"/> I oppose this	<input type="checkbox"/> I don't know / no opinion
Please provide any comments:		

**Permanent sink screens**

We are proposing to require installing sink screens on sinks in food premises where repeated complaints of odour arise from food waste being caught in a grease interceptor.

 I support this

 I oppose this

 I don't know / no opinion

Please provide any comments:

**Tankered wastes**

We are proposing to update the requirement for certification, changing from WasteMINZ to the NZ Trade and Industrial Waters Forum. We are also proposing to change the requirements to allow a tankered waste collector to hold either a resource consent or a Certificate of Registration for Offensive Trade.

 I support this

 I oppose this

 I don't know / no opinion

Please provide any comments:

**Timeframe for considering consent applications**

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 I support this

 I oppose this

 I don't know / no opinion

Please provide any comments:

**General comments:**

Please note here any general comments you may have about the draft Trade Waste Bylaw 2022.

Thanks for your caring

**SUBMISSIONS CLOSE: 4pm, Friday 3 December 2021**

**PNCC.GOVТ.NZ/TRADEWASTE**

**4-3**

**From:** Submission  
**Subject:** FW: Draft Trade Waste Bylaw 2022 Submission

<b>Your contact details</b>
<b>Name</b> sayed ayyad rahmani
<b>Organisation</b> owner
<b>Hearing</b>
<b>Would you like to speak to Council in support of your submission?</b> Yes
<b>Controlled trade waste</b>
We are proposing creating a new category of trade waste (controlled trade waste) where the discharge complies with all the permitted characteristics except for the volume. Controlled trade waste dischargers would be charged for every m3 of trade waste they discharge. I support this
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<b>Tankered waste</b>

4-4

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I support this

Comments

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I support this

Comments

**General comments**

Please note here any general comments you may have about the draft Trade Waste Bylaw 2022.  
Thanks for your support

**5-1**

**Submission on PNCC Draft Trade Waste Bylaw 2022**

Send to : [submission@pncc.govt.nz](mailto:submission@pncc.govt.nz)  
with subject "Draft Trade Waste Bylaw 2022"  
by 3/12/2021, 4pm.

25/11/2021

**Submitter details**

Name: Chris Teo-Sherrell

**My submission is:**

1. That a subclause be added to the Purpose clause (Cl. 2.1) to state that the purpose of the bylaw is also to share the costs of collection and treatment of wastewater equitably across residential wastewater and trade waste producers.
2. Cl. 2.2b doesn't mention 'controlled trade waste' which was referred to in the description of the proposal on p2. Although it is described on p19, along with the other categories of trade waste, it seems inconsistent for it not to be included in the statement of purpose (this clause) or the definitions (clause 6).
3. The Definitions section includes 'Stormwater Drainage Network'. In the 2022 Draft Storm Water Bylaw this is shortened to 'Stormwater Network'. Perhaps consistency would be good across bylaws.
4. Also, in the Definitions section, does the definition of Working day need to be modified to take account of the new Matariki public holiday?
5. The proposed charge for controlled Trade Waste is inequitable. Currently, the domestic wastewater charge is \$296/year. Assuming, generously, that domestic waste water discharge is 0.5m<sup>3</sup>/day/residential rating unit (assumes average occupancy of 2.5 people and average water use of 0.2m<sup>3</sup> per person per day and that all of that water becomes waste water), then over 365 days that would amount to 182.5m<sup>3</sup>. At \$296/year that works out at \$1.62/m<sup>3</sup>. This compares with the \$0.502/m<sup>3</sup> proposed for controlled trade waste water.
6. I request that, at the very least, the charges/m<sup>3</sup> be equalised. There should be no discount on either the basis of whether the waste is residential or commercial/industrial or on the basis of quantity discharged. Indeed, as an incentive for adopting water-saving measures, the rate should escalate from this base figure as quantities increase.
7. The limit on refuse/garbage grinders (cl.8.1(e)) could be extended to residential customers (though perhaps as part of the Waste Water Bylaw not as part of this Trade

5-2

Waste Bylaw) or additional charge could be levied on those who have these fitted in their houses.

8. CI 13.1(b). This statement misses out the words 'or controlled discharge'. It seem to me that it should be there.
9. I support the requirement for permanent sink screens in food premises stated in CI. 16.4.

Thank you.

6-1

**From:** Submission  
**Subject:** FW: Draft Trade Waste Bylaw 2022 Submission

<b>Your contact details</b>
<b>Name</b> Jennifer Leadley
<b>Organisation</b> New Zealand Trade and Industrial Forum Inc.
<b>Hearing</b>
<b>Would you like to speak to Council in support of your submission?</b> No
<b>Controlled trade waste</b>
We are proposing creating a new category of trade waste (controlled trade waste) where the discharge complies with all the permitted characteristics except for the volume. Controlled trade waste dischargers would be charged for every m3 of trade waste they discharge. I support this
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**6-2**

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I don't know/no opinion

Comments

**General comments**

Please note here any general comments you may have about the draft Trade Waste Bylaw 2022.



7-1



**SUBMISSION BY THE FUEL COMPANIES TO THE PALMERSTON NORTH CITY COUNCIL DRAFT TRADE WASTE BYLAW 2022**

**To:** Draft Trade Waste Bylaw 2022 Submissions  
Democracy and Governance Team  
Palmerston North City Council  
Private Bag 11034  
Palmerston North 4442

E-Mail: [submission@pncc.govt.nz](mailto:submission@pncc.govt.nz)

<b>Submitter:</b>	Z Energy Limited <sup>1</sup> PO Box 2091 <b>WELLINGTON 6140</b>	BP Oil New Zealand Limited PO Box 99 873 <b>AUCKLAND 1149</b>	Mobil Oil New Zealand Limited PO Box 1709 <b>AUCKLAND 1140</b>
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*Hereafter referred to as the Fuel Companies*

**Date:** 3 December 2021

**Address for Service:** 4Sight Consulting Limited  
PO Box 911 310  
Victoria Street West  
Auckland Central 1142  
Attention: Sophie Brocklesby  
Email: [sophie.brocklesby@4sight.co.nz](mailto:sophie.brocklesby@4sight.co.nz)



LAND. PEOPLE. WATER.

<sup>1</sup> On behalf of the wider Z Group, including the Z and Caltex operations in New Zealand.



**INTRODUCTION**

1. Palmerston North City Council (*Council*) is seeking feedback on its draft Trade Waste Bylaw 2022 (*the Bylaw*).
2. The Council has prepared a statement of proposal to accompany the proposed bylaw. That statement highlights several areas of change relevant to this submission, including:
  - Addition of a (new) Controlled trade waste consent category for discharges that comply with all the permitted characteristics but exceeds 5m<sup>3</sup> volume per day; and
  - Require renewal applications of an existing trade waste consent to be received at least eight weeks before the consent expires.
3. The Fuel Companies receive, store, and distribute refined petroleum products around New Zealand. In Palmerston North, the Fuel Companies’ core business relates to the storage and distribution of petroleum products and operation of retail fuel outlets, including service stations and truck stops. The Fuel Companies’ interests in trade waste bylaws typically relate to how they address discharges from car washes.
4. This submission responds to the proposed bylaw and draws on the experience of the Fuel Companies operating under a range of trade waste bylaws around the country.
5. The Fuel Companies do not wish to be heard in relation to this submission but would be pleased to discuss these matters further with Council if that would assist.

**CAR WASH DISCHARGES**

6. Discharges from modern car wash facilities include both a pre-treatment device and a water recycler. Treatment is most frequently provided by a proprietary oil/grit interceptor to reduce both suspended solids and hydrocarbons. This enables the Fuel Companies to comply with permitted physical and chemical characteristics subject to appropriate operation and maintenance, which is addressed via robust procedures, for instance the Trade Waste Management Procedure operated by Z Energy which is **attached** to provide an example of how these discharges are managed. The Fuel Companies have comprehensive monitoring records over an extended period demonstrating consistent compliance with the relevant quality characteristics which means regular compliance testing of outputs from these proprietary devices is not required. This is demonstrated by the table below which shows the results of BP’s carwash water quality sampling results for the last 10 years at 39 sites and shows no exceedances of relevant limits.

	TPH g/m3	pH	TSS g/m3
<b>Compliance limits</b>	<b>50</b>	<b>6.0-9.0</b>	<b>600</b>
Average	8.89	7.0	38.3
Min	0.25	6.2	6.1
Max	48	8.0	83.0
Exceedances	0	0	0
# Sites	39	39	5
# Samples	161	154	34



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## PROPOSED BYLAW

### *Controlled trade waste category*

7. The proposed bylaw includes permitted, controlled, conditional, and prohibited categories. These are generally supported, including the addition of the controlled category for discharges which comply with the permitted characteristics but exceed a particular volume. An increase to 10m<sup>3</sup> is, however, sought to the permitted volume, at least for modern car wash facilities with management plans in place, to avoid potentially requiring controlled activity consents for car wash discharges which may at times exceed 5m<sup>3</sup> but otherwise meet the permitted characteristics.
8. To reflect the intent of the controlled category, the Fuel Companies also seek an amendment to clause 10.1(b) to make it clear that conditions on controlled activity consents will be restricted to matters relating to discharge volume, noting that compliance with permitted quality characteristics must be met for the controlled consent pathway to be available. This could be achieved by amending the controlled trade waste category as set out below (deletions in strike through, additions in underline). Corresponding amendments would be required to the flow characteristics at clause 2.1 of Appendix 1 to the Administration Manual 2022.

#### **Controlled Trade Waste**

*Trade waste that complies with the physical and chemical characteristics defined in appendix 1 of the Administration Manual, but where the volume exceeds 105m<sup>3</sup> per day is controlled trade waste and requires a consent from the Council prior to its discharge into the wastewater system. Conditions shall be limited to those relevant to discharge volume.*

9. A 10m<sup>3</sup> volume would align with the Auckland Trade Waste Control 2019 (which supports the Trade Waste Bylaw 2013) which permits discharges up to 10m<sup>3</sup> and defines trade waste discharges up to that limit as low risk to the hydraulic capacity of the public wastewater network.
10. The Fuel Companies consider costs associated with volume could be appropriately addressed via metering and doing so would achieve the purpose of the proposed bylaw and need not require a controlled activity consent.
11. The Fuel Companies would support the increase in volume being limited to car wash facilities managed in accordance with a trade waste management plan if that would give Council assurances. That could be achieved by amending the controlled activity category as follows:

#### **Controlled Trade Waste**

*Trade waste that complies with the physical and chemical characteristics defined in appendix 1 of the Administration Manual, but where the volume exceeds 5m<sup>3</sup> per day, except for car wash facilities where Council is provided with a trade waste management plan and the volume does not exceed 10m<sup>3</sup>, is controlled trade waste and requires a consent from the Council prior to its discharge into the wastewater system. Conditions shall be limited to those relevant to discharge volume.*



**2. Physical characteristics**

**2.1 Flow**

a) *The 24 hour flow volume shall be less than 5m<sup>3</sup>*

b) *The discharge is from a car wash and the 24 hour flow volume is less than 10m<sup>3</sup> and the discharge is managed in accordance with a Trade Waste Management Plan which is provided to Council on request.*

....

**Consequential amendments**

12. A range of consequential amendments reflecting the new controlled activity category are proposed by Council. The Fuel Companies support those changes but consider one additional change is required to reflect the same at clause 13.1(b) (additions in underline).

*The quantity and nature of the discharge changes or is likely to change significantly to such an extent that it becomes a controlled, conditional or prohibited; or ...*

13. The Fuel Companies support the addition of Clauses 13.8 to 13.11 outlining the process for renewal of consents. To support implementation of the same, the Fuel Companies seek that Council undertakes to notify consent holders at least 12 weeks in advance of consent expiry to ensure requirements to seek to renew consents are not overlooked and can be lodged at least 8 weeks before expiry. While it is accepted that is the responsibility of dischargers to ensure they have the appropriate consents in place, this will help promote compliance.

Signed on and behalf of Z Energy Limited, BP Oil New Zealand Limited, and Mobil Oil New Zealand Limited

.....  
Sophie Brocklesby  
Graduate Planner

**PROCEDURE**

**Trade Waste Management Plan**

HS-ENV-PRO-011



**ZORM**

**Revision Summary**

Version	Author	Reasons for Change	Approver	Date Approved
1.0	H Jones	New document	M Robertson	18 Dec 2018

<b>Document classification</b>	Unclassified
<b>Document location</b>	Controlled copies of this document are accessible in electronic form via the Z Energy server. All paper versions are uncontrolled documents.
<b>Document custodian</b>	Environmental Manager
<b>Document authority</b>	Deviation/variation from this procedure can only be done with the approval of General Manager - HSSE or delegated authority

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## 1: Purpose and Scope

This Trade Waste Management Plan (TWMP) provides an overview of how Z Energy manages its trade waste on retail service stations. Discharges are limited to toilet waste, kitchen discharges and car washes (at some sites). Facilities are managed under national maintenance contracts that include the controls listed in this Plan. All carwash facilities are routinely maintained to a consistent schedule by a third party contractor and as such, monitoring data from these sites is typically consistent with respect to trade waste discharges. Similarly there is limited variation in toilet waste or kitchen discharges nationally.

This document provides details of wastewater generated from normal service station operations with an emphasis on carwash units as the main discharge triggering permit requirements.

This TWMP details the following:

- General information about service station site layouts and descriptions;
- The make and model of carwash units that are in use;
- Typical characteristics and volumes generated by the carwash units;
- The wastewater treatment devices present onsite;
- A range of measured contaminant concentrations discharged from the carwash to sewer following on-site water treatment;
- Emergency spill response procedures;
- Internal and external notification procedures;
- Details of wash water from the provision of ready to eat food and beverages.

Z Energy Ltd has over two hundred service stations located throughout New Zealand. All service stations provide ready to eat food and beverages; including the operation of automated coffee machines.



## 1.1 Trade Waste Bylaws

Trade Waste Bylaws vary across New Zealand; with each District Council identifying different contaminants of concern, monitoring requirements and charging mechanisms.

Z has operated under most of the different trade waste bylaws and has found that service station discharges are often treated as a permitted discharge that does not require a Trade Waste authorisation. In some jurisdictions this may not be the case.

In some jurisdictions car wash facilities are permitted without a specific authorisation. In others high use car washes may trigger thresholds for daily discharge volume and require a Trade Waste Authorisation.

This TWMP does not go into site specific details, rather provides an overview of how Z Energy operates and maintains their trade waste discharge. This is appropriate because operations are broadly consistent and maintenance is under a national contract. Each service station/ carwash will have broadly similar discharge characteristics with the presence or absence of carwashes being the main difference between sites. Accordingly this TWMP is intended to support permit applications by presenting typical discharge data to demonstrate the low risk nature and limited variability of service station trade waste discharges.



**7-10****2: Service Station Layout and Details**

Although each service station will differ in terms of layout, the types of treatment devices used are universal throughout New Zealand.

A typical service station layout with a carwash is appended (Appendix A).

Approximately sixty service stations have active automated carwash facilities. Typically Acco drains are located along the entry and exit of each carwash. All wastewater generated by a carwash goes through an oil/grit interceptor before being discharged to the municipal sewer as 'trade waste'.

Many of the carwash units are water recycling carwashes; where each carwash saves up to 60% of water usage compared to sites without the recycling units.

There are no automated monitoring or logging devices installed for trade waste purposes at any Z service station. As described in Section 7, all carwash treatment devices undergo routine inspections and maintenance on a biannual basis.

All carwash locations and drainage specifications are shown on 'as-built' plans, which are displayed on-site and are also available on request from Z Energy.

The forecourt of each service station is graded and any stormwater is directed to the stormwater network typically via an API prior to discharge as shown on site plans available onsite.

A toilet for public and staff use is located off the main shop and there will be a sink for the food and coffee service area.

Windscreen wash water is discharged to the sewer (through the carwash or toilet when it requires replacement).



### 3: Nature of Discharge

Trade waste discharges are limited to:

- Toilets
- Food preparation
- Car washes

Note: Workshops are not operated by Z Energy but may be present as part of a sublease. Any workshop discharges are the responsibility of the workshop operator.



7-12

**4: Toilets**

On-site toilets are only used by staff and Z Energy customers and therefore produce a low sewage load.

Windscreen wash water is discharged to the sewer, either through the carwash or via the on-site toilet when it requires replacement.



**7-13**

**5: Food Preparation**

All retail stores at Z service stations sell a limited range of groceries and provide ready to eat foods. The ready to eat food includes pies, sandwiches, and cold drinks. No raw food components are handled and no food preparation work is undertaken within Z retail stores. All food is purchased pre-prepared and sold as a "finished product". Small amounts of waste and wash water will be generated during the cleaning of the pie warmer trays and food cabinets. The volumes of wastewater and grease produced by the cleaning of the food cabinets is considered to be very low and unlikely to affect the grease component of the discharge from site.

Most sites are also equipped with automatic coffee machines where staff have the capacity to froth and dispense milk for customers. Coffee machines produce small amounts of residual waste and wash water generated during cleaning and operation. This wastewater may potentially contain residual dairy products. The volume of wastewater produced from operation of the coffee machines is low and unlikely to affect the biological oxygen demand (BOD) loading of discharge from a site.



## 7-14

## 6: Carwashes

## 6.1 Carwash Details

All Z sites in New Zealand that contain a carwash use a Washtec 3B Pro model unit; manufactured in Germany. This model offers a range of wash options; which Z has classified as 'Z Quick Wash', 'Z Classic Wash' and 'Z Max Wash'. The volume of water generated per wash and detergents used per cycle depends on the carwash option chosen.

The typical vehicle detergents used by Z Energy are Car Kleen (CK) Shampoo, CK Cold Wax, CK Hot Wax, CK Max Gloss and CK Tri Foam Orange Foam:

- Car Kleen Tri Foam Orange is a vehicle detergent for the foaming brush application. Its physiochemical properties include a pH of 7.0, it is biodegradable and completely soluble in water;
- Car Kleen Max Gloss is a foam polish used in automatic carwash systems. It has a pH of 5.5 and is soluble in water;
- Car Kleen Shampoo is a vehicle detergent for jet foaming applications. It has a pH of 7.0, it is biodegradable and is soluble in water;
- Car Kleen Cold Wax and Car Kleen Hot Wax are vehicle drying aids. Both products have a pH of 8.0, are biodegradable and are soluble in water.

These products are manufactured by Car Kleen New Zealand Ltd. Copies of the Safety Data Sheet's (SDS) for each product are found in Appendix B.

The volume of water and detergents used in each carwash cycle are presented in Tables 1 to 3.

**Table 1: Z Quick Wash**

Wash Pass	Detergent Volume (ml)	Water Volume (L)
<b>Pass 1:</b> Active Pre-foam	20	3
<b>Pass 2:</b> Side Hi-Pressure Pre-wash	0	30
<b>Pass 3:</b> SofTecs Brush Wash with Wheel Wash	25	102
<b>Pass 4:</b> SofTecs Brush Wash with Cold Wax	20	
<b>Total</b>	<b>65</b>	<b>135</b>

**Table 2: Z Classic Wash**

Wash Pass	Detergent Volume (ml)	Water Volume (L)
<b>Pass 1:</b> Active Pre-foam	20	3
<b>Pass 2:</b> Side Hi-Pressure Pre-wash	0	30
<b>Pass 3:</b> SofTecs Brush Wash with under Chassis Wash	25	153
<b>Pass 4:</b> SofTecs Brush Wash with Wheel Wash (with rinse)		
<b>Pass 5:</b> Hi-Gloss Wax	20	5
<b>Pass 6:</b> Cold Wax	20	5
<b>Total</b>	<b>85</b>	<b>196</b>



**7-15**

**Table 3: Z Max Wash**

Wash Pass	Detergent Volume (ml)	Water Volume (L)
<b>Pass 1:</b> Active Pre-foam	20	3
<b>Pass 2:</b> Side Hi-Pressure	0	30
<b>Pass 3:</b> SofTecs Brush Wash with under Chassis Wash	25	153
<b>Pass 4:</b> SofTecs Brush Wash with Wheel Wash (with rinse)		
<b>Pass 5:</b> Max!Gloss Foam Polish	35	5
<b>Pass 6:</b> SofTecs Brush Buff with Cold Wax	20	5
<b>Total</b>	<b>100</b>	<b>196</b>



7-16

6.2: Typical Discharge Volumes

The annual wastewater discharge from carwash units varies significantly between sites as a result of the total number of carwash cycles and the wash options chosen by each customer. Z does maintain a record of water use on a site by site basis. In some cases carwash water use may be available separately but generally it is calculated from the overall carwash numbers and checked against total site water consumption.

Data provided from the 2018 financial year shows that carwash usage on Z service stations varied between a minimum of 3,976 washes to a maximum of 16,481 washes per year. On a daily basis, this translates to a range from approximately 11 washes per day to approximately 45 at a single site (refer to Table 4).

Table 4: Details of Z Carwash Data 2018

2018 Z Carwash Data		
	Annual Carwashes	Daily Carwashes
Minimum	3,976	10.89
Mean	8,627	23.63
Median	8,592	23.54
Maximum	16,481	45.15



**7-17**

### **6.3: Water Treatment**

The construction of carwash units is consistent across all Z Energy service stations. All wastewater is collected and treated via the following hierarchy:

- All wash water is directed into slot drains which provide initial settlement for coarse sediment;
- Wash water is then directed into an oil/grit interceptor for the function of further settlement of solids (to reduce Total Suspended Solids (TSS)) and to capture and retain hydrocarbons and other floatables, and
- From the interceptor, wastewater is discharged into the municipal sewer.

The use of a triple interceptor is accepted as best practice for the treatment of wash water. Best practice for sizing a triple stage interceptor is to allow for a minimum of one hour retention time and a maximum influent rate of 0.5L/s. It is generally accepted that a triple stage interceptor has a treatment efficiency of up to 60% for TSS and hydrocarbons.

No discharges are permitted to trade waste without specific authorisation and approval from the relevant Authority, whether it is via consent, agreement, bylaw or a combination.



**7-18****6.4: Maintenance and Cleaning Requirements:**

All forecourt interceptors, single sumps, mud traps and slot drains are inspected to ensure contamination levels do not exceed the following criteria:

- For interceptors, sumps and mud traps – silt build up greater than 150 mm depth and/or product thickness greater than 3 mm;
- For slot drains – silt build up greater than 25% depth to invert and no hydrocarbons.

Where contamination levels exceed these criteria, all such units on the Site shall be cleaned as per the following specifications from the maintenance contract.

- All forecourt interceptors, single sumps, and mud traps, shall be cleaned of all hydrocarbons and silt / sediment and recharged with clean water on a biannual basis. Cleaning procedures and all waste removal/disposal shall comply with all statutory requirements.
- Where sites are cleaned outside of the biannual schedule, the schedule shall be adjusted accordingly for future cleans.
- All slot drains shall be cleaned only as and where required.
- All results and observations from inspections and cleaning records are held by Z Energy.
- In all instances where free product is encountered, the Z Environmental Manager shall be notified.



**7-19**

**6.5: Expected Contaminants**

Z Energy has complied laboratory analysis of contaminants in wash water discharged to the sewer from selected carwash units following treatment (slot drains and an interceptor) at a range of locations across New Zealand. Table 5 presents a selection of the analytical results. Z Energy expects well-maintained sites to achieve similar results to those represented in Table 5.

Contaminants generated from automated carwash units represent residues washed from cars, as well as a component of cleaning detergents used in the process. The range of contaminants typically expected includes TSS, detergents and surfactants such as oils, grease and other hydrocarbons. This was confirmed by independent research undertaken by Environment Canterbury (2011) who concluded that the most common contaminants in carwash water included heavy metals, polycyclic hydrocarbons (PAHs), detergents/surfactants, suspended solids, oil and grease, volatile organic compounds, phosphates and nitrates.



**7-20****7: Monitoring of Trade Waste**

Z Energy has monitored trade waste at a range of sites over the last twenty years and has found that discharges met typical trade waste bylaw limits.

Sampling of trade waste discharges will be undertaken as per specific consent conditions or if required by a trade waste bylaw. Any non-compliance will be discussed between Services Resources Ltd (Z's Maintenance Contractor – refer to Section 8) and Z Energy and appropriate measures (further maintenance and/or preventive action) will be undertaken to ensure compliance with the applicable consent, approval or bylaw.

Monitoring in 2018 as outlined in Table 5 indicate a comparable low contaminant load and limited variability. It is clear that monitoring has not resulted in any additional pre-treatment requirements and thus ongoing monitoring is considered redundant. This is because the systems and maintenance are consistent and the nature of the activity does not generate high loads that might inhibit trade waste treatment or damage infrastructure.

Z considers that the nature of service station trade waste discharges is sufficiently well known that monitoring should not be required.



7-21

Table 5: Analytical Results

Site	Date	pH	TSS	cBOD	Grease	C <sub>7</sub> -C <sub>9</sub>	C <sub>10</sub> -C <sub>14</sub>	C <sub>15</sub> -C <sub>36</sub>	Contaminants			
									Total Hydrocarbons (C <sub>7</sub> -C <sub>36</sub> )	Total Kjeldahl Nitrogen (TKN)	Total Phosphorus	Total Phosphorus
Z Energy Pukete	09/07/18	7.5	86.5	48.6	-	< 0.06	1.7	8	10	1.8	0.9	
Z Frankton	09/07/18	7.4	170	55	-	< 0.06	2.0	7	9	3	1.1	
Z Energy Broadway	25/05/18	-	21	55	< 4	-	-	-	-	-	-	
Z Energy Johnsonville	24/05/18	-	46	68	8	-	-	-	-	-	-	
Z Andy Bay	30/07/18	7.2	52	21	14	-	-	-	-	-	-	
Z Valley	02/08/18	7.2	280	63	34	-	-	-	-	-	-	
Z Miramar	25/05/18	-	796	110	36	-	-	-	-	-	-	
Z Harbour City	23/08/18	-	24	47	9	-	-	-	-	-	-	



## 8: Facilities & Fuels Maintenance Structure

All carwash interceptors, single sumps, mud traps and slot drains on Z Energy service stations are inspected and cleaned by an independent contractor on a six monthly basis. Z Energy has contracted out all commercial facilities maintenance to Service Resources Ltd and all fuel maintenance to ECL Site Care.

As part of the commercial facilities maintenance, Service Resources Ltd are responsible for all maintenance & service contracts associated with day to day maintenance of Z Energy owned or operated buildings and equipment within the Retail Network of sites.

ECL Site Care is responsible for all maintenance and service contracts associated with the day to day maintenance of Z Energy owned or operated fuel systems including underground and above ground storage and dispensing equipment (e.g. tanks, pipework, dispensing equipment, site drainage equipment, forecourt controller interface).

Maintenance arrangements are structured around two main work categories:

- Contract Maintenance Services; and
- Planned Maintenance Services.

### Contract Maintenance Services:

The scope of services for this category is the preventive and responsive maintenance (fix and breaks) on plant, buildings and equipment as required in the day to day operation of a retail service station.

### Planned Maintenance Services:

This category covers all pre planned routine checks and inspections to ensure Z Energy meet its compliance obligations in respect to the operation of its facilities, which would include any maintenance required by specific trade waste consents, agreements or bylaws.

Results of scheduled maintenance activities are reviewed by the Environmental Manager and appropriate measures taken (if required) to ensure compliance.

### Council Inspections:

Should regulatory agencies require access to any Z sites, such as to conduct inspections and audits, the following steps must be followed:

- All visitors must sign-in at the service station and complete a 'site visitors/contractors form';
- A Work Clearance Form should also be completed on all manned sites. This form will be
- Minimum PPE should include a high visibility vest and steel-capped shoes/boots.

A health and safety work method statement and/or Job Safety Analysis (JSA) should be available for review, upon request.

Any council enquiries regarding trade waste matters should be directed to Z's Environmental Manager.



## 9: Emergency Spill Response Procedure

With respect to trade waste systems there is limited potential for spillage to enter sewers. Site drainage design essentially precludes on-site spills from entering the trade waste system.

There is the potential of spillage and/or leakage of petroleum hydrocarbons on the forecourt from fuel dispensers, fuel delivery and from vehicles. In the event of a spill, Z workers and/or contractors shall take all immediate steps to contain the spill.

Spill kits are located at each service station and every staff member is trained in undertaking spill response measures (as outlined in Z Energy's Environmental Management Plan).



**7-24**

**10: Notification Procedure**

All maintenance records and sampling results are reviewed by Z Energy's Environmental Manager prior to further action being undertaken, if required.

If any free product is encountered during maintenance and/or cleaning, the Z Environmental Manager shall be notified immediately.

If required by the trade waste consent, agreement or bylaw; sampling results, maintenance records, updated management plans or remedial action plans will be submitted to the appropriate Councils within specified timeframes.

In a spill event, all staff are trained in undertaking the emergency spill response procedure; including whom to contact during an emergency.



## 11: Summary

All carwash units in use at Z service station sites include slot drains and triple interceptors for the treatment of wash water. This water treatment is considered to be the standard industry best practice and has been demonstrated by Z's analysis and independent research to be effective in managing potential contaminants. Wash water from the carwash units is therefore considered to have a relatively low contaminant loading and present a low risk to the public sewer system.

Z Energy is committed to the ongoing maintenance of wash water treatment devices to ensure their effective operation.

Cleaning of food cabinets and coffee machines generate only minor volumes of wastewater, and it is considered that the contaminant loading of this wastewater is very low.

The TWMP will be reviewed and updated as required. Any service station with a carwash will have access to a copy of the current TWMP.

Any council enquiries regarding trade waste matters should be directed to Z's Environmental Manager.

## References

Auckland Regional Council prepared by Timperley, M. Williamson, B. Mills and G. Horne, B. June 2005. Sources and loads of metals in urban stormwater. Technical Publication No. ARC04104 AKL 2004-070

Auckland Regional Council, 2008 *Urban Sources of Copper, Lead and Zinc*, TR2008/023.

Environment Canterbury prepared by O'Sullivan, A., Smalley, D.S., Good, J. December 2011. Quantifying the impact of car washing on water quality and assessing simple treatment strategies. R11/115. Printed at the University of Canterbury, New Zealand.

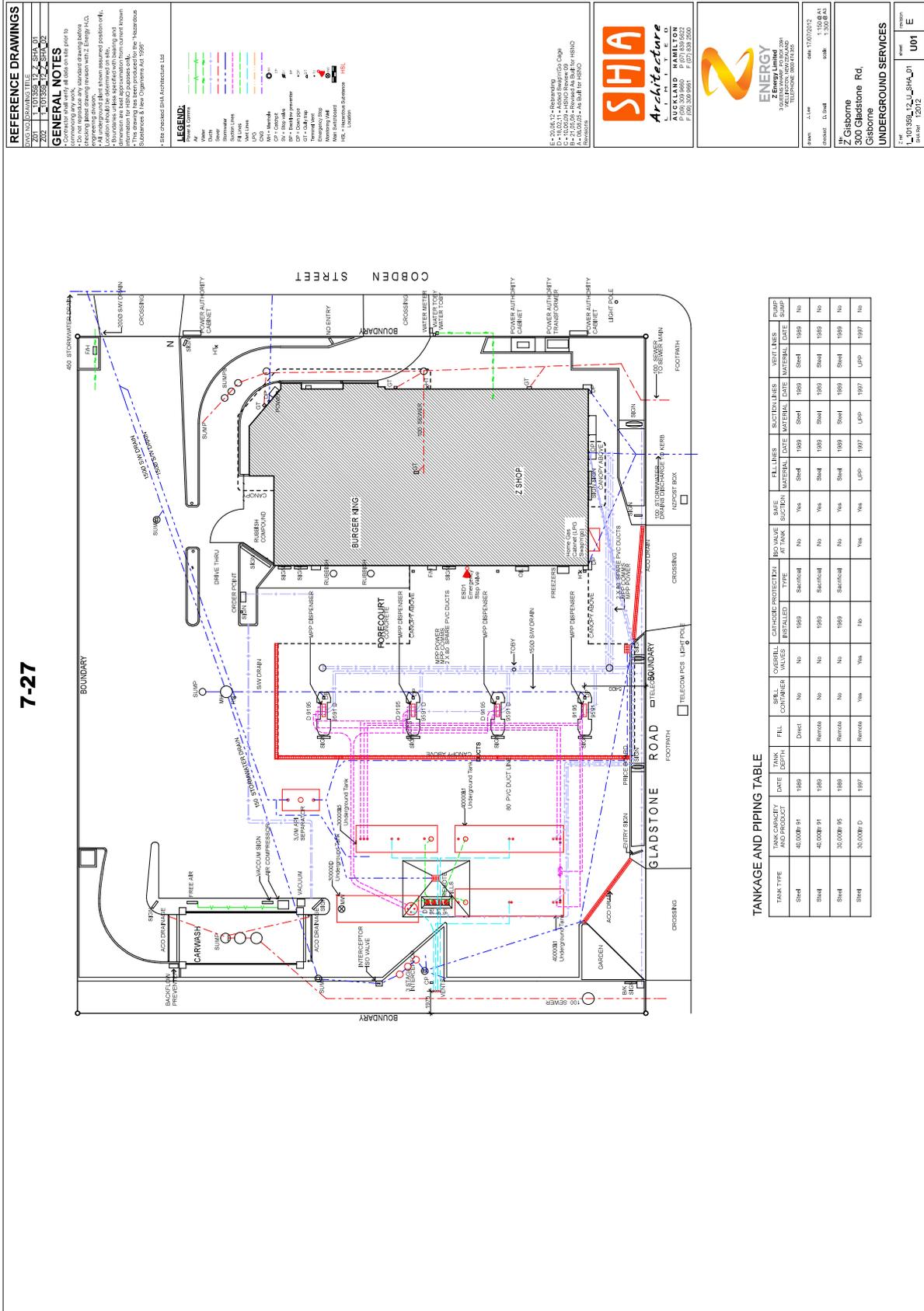
Toronto and Region Conservation Authority prepared by Van Seters, T. July 2004. Performance Assessment of Two Types of Oil & Grit Separator for Stormwater Management in Parking Lot Applications - Markham & Toronto, Ontario.



7-26

Appendix A: Typical Service Station Underground Services Plan





7-27

**REFERENCE DRAWINGS**

NO.	DATE	DESCRIPTION
1	10/15/2011	ISSUE FOR PERMIT
2	10/15/2011	ISSUE FOR PERMIT
3	10/15/2011	ISSUE FOR PERMIT
4	10/15/2011	ISSUE FOR PERMIT
5	10/15/2011	ISSUE FOR PERMIT

**GENERAL NOTES**

- 1. All piping shall be installed in accordance with the applicable codes and standards.
- 2. All piping shall be installed in accordance with the applicable codes and standards.
- 3. All piping shall be installed in accordance with the applicable codes and standards.
- 4. All piping shall be installed in accordance with the applicable codes and standards.
- 5. All piping shall be installed in accordance with the applicable codes and standards.

**LEGEND**

Symbol	Description
(Symbol)	Water
(Symbol)	Sanitary
(Symbol)	Stormwater
(Symbol)	Fire
(Symbol)	Gas
(Symbol)	Oil
(Symbol)	Acid
(Symbol)	Other

**SHA Architecture**  
AUCKLAND HAMILTON  
PO BOX 300 9850 P 071 839 5522  
E 071 839 5523 F 071 839 5524  
WWW.SHAA.CO.NZ

**ENERGY Z**  
3 JUTTIER STREET, SUITE 201  
DUNEDIN 9014  
TELEPHONE: 0800 74 59 59

Drawn: J. Hall Date: 17/07/2012  
Checked: J. Hall Date: 17/07/2012  
Scale: 1:500

2 Gisborne  
300 Gladstone Rd,  
Gisborne  
UNDERGROUND SERVICES

Sheet: 1 of 1  
Project: L\_101358L\_P2\_U-SHA\_01  
Revision: 001  
Date: 12/01/2012

TANKAGE AND PIPING TABLE

TANK TYPE	TANK CAPACITY AND PRODUCT	DATE	TANK DEPTH	FILL	SEAL COMPARTER	OVERALL VALUES	CORROSION PROTECTION	NO DRAIN AT TANK	SPACE SUCTON	FILL LINES	SUCTON LINES	VENT LINES	PUMP
										MATERIAL	MATERIAL	MATERIAL	
Shed	40,000 P1	1989		Direct	No	No	1989	Stainless	No	Steel	Steel	Steel	No
Shed	42,000 P1	1989		Removal	No	No	1989	Stainless	No	Steel	Steel	Steel	No
Shed	30,000 P5	1989		Removal	No	No	1989	Stainless	No	Steel	Steel	Steel	No
Shed	30,000 D	1997		Removal	Yes	Yes	1997	Stainless	Yes	UPSP	UPSP	UPSP	No

7-28

Appendix B: Car Kleen Safety Data Sheets



# SAFETY DATA SHEET

## 1 PRODUCT AND COMPANY IDENTIFICATION:

### Car Kleen COLD WAX

A water beading aid for automatic carwash systems.

### CAR KLEEN NEW ZEALAND LTD

2 Te Apunga Place  
 Mt Wellington  
 Auckland 1060  
 New Zealand.

PO Box 112071, Penrose, Auckland, 1642, New Zealand.  
 Phone: (64-9) 276-1419  
 Fax: (64-9) 276-1962  
 E-mail: [cknz@xtra.co.nz](mailto:cknz@xtra.co.nz)

EMERGENCY CONTACT: Phone (64-9) 276-1419 8.0 to 5.0 Mon to Fri  
 After Hours: National Poisons & Hazardous Chemical Information Centre: 0800-764-766 (0800-POISON)

## 2 HAZARD IDENTIFICATION:

Hazardous Substances and New Organisms Act (HSNO) 1996 & Classification Regulations 2001 for the product of this concentration:

- 3.1D Combustible liquid.
- 6.3A Causes skin irritation.
- 6.4A Causes eye irritation.
- 9.1B Toxic to aquatic life with long lasting effects.

Cleaning Products Combustible Group Standard: HSR No: 002525.

## 3 COMPOSITION & INFORMATION ON INGREDIENTS:

Proprietary mixture of nonionic and cationic surfactants	10 – 20 %
Mineral oil	10 – 20 %
Water, colouring, preservative	> 50 %

## 4 FIRST AID MEASURES:

Contact with eyes: Rinse eyes with running water holding back eyelids for 15 minutes. If irritation persists seek medical advice.  
 Contact with skin: Wash affected area with copious volumes of water. If clothing is contaminated, remove and wash the affected skin area. If irritation or swelling occurs seek medical advice.  
 After inhalation: If the patient is subject to vapourisation, remove from exposure and seek medical advice.  
 After ingestion: Do Not Induce Vomiting. Administer 2 glasses of water or milk, and if discomfort persists seek medical advice.  
 Advice to Doctor: Treat patient for acute exposure to materials with toxic effects. Have this SDS or a product label on hand.  
 After Hours: National Poisons & Hazardous Chemical Information Centre: 0800-764-766 (0800-POISON)

## 5 FIRE FIGHTING MEASURES:

This product is combustible. It will not ignite a fire but will burn if exposed to a fire source. Avoid electrical ignition sources. Containers subject to heat from a fire may explode scattering burning contents. Where possible remove containers from the path of the fire. Otherwise cool with water spray to avoid heating.  
 Firefighters wear SCBA and chemical resistant suits.  
 Foam, CO2, or chemical dry powder to extinguish a local fire. Water spray on large fires only.

## 6 ACCIDENTAL RELEASE MEASURES:

Spills on floors will produce a slippery surface. Shut off all possible sources of electrical ignition.  
 Contain minor (less than 100 litres) from local drainage with any suitable bund or barrier. Where the product is water soluble, dilute with water, neutralise if necessary, and then clean up with mops or any suitable absorbent inert material such as Mineral Sponge, paper, rags, sand, or soil. Pack absorbed waste material into open-top drums, which can be closed, for waste disposal.  
 Large spills from drums and IBC's should be contained from drains and diluted with water where possible. Alert the local Fire Brigade.  
 Collect absorbed material in drums which can be closed and sent to landfill. If material does enter drains, alert the local drainage authorities.

## 7 HANDLING AND STORAGE:

Store containers, with secure closures, in sites where they can be kept cool and away from heat and ignition sources.  
 Handle to prevent damage to containers. Should packaging be damaged, repack into clean and dry containers of the same type and mark the product name carefully on the container.  
 Always replace lids and caps after using the product. Return all packages to safe storage as soon as possible after use.

The information contained in this Safety Data Sheet is provided in good faith and is believed to be correct as at the date hereof. However, it is expected that individuals receiving the information will exercise their independent judgement in determining its appropriateness for a particular purpose. The Proprietor makes no representation as to the accuracy or comprehensiveness of the information. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of the use of the product are therefore assumed by the user and we expressly disclaim all warranties of any kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Appropriate warnings and safe handling procedures should be provided to handlers and users.

**SDS for Car Kleen COLD WAX****8 EXPOSURE CONTROLS & PERSONAL PROTECTION:**

Exposure controls:	No data is available for Cold Wax.
Eye protection:	Safety glasses.
Protective clothing:	Chemically impregnable gloves, work shoes, protective work clothes (an apron or overalls).
Respiratory protection:	Not required for the regular use of this product. If the liquid is being sprayed or vaporised, a face shield and/or respirator must be worn. These operations should be carried out by trained personnel only.
Ventilation:	Where spraying or vaporising is being carried out, ensure there is ready access to eyewash units and safety shower. Also adequate ventilation is provided in the work space.

**9 PHYSICAL AND CHEMICAL PROPERTIES:**

<b>Appearance</b>	Clear orange coloured liquid
<b>Odour</b>	Characteristic
<b>pH</b>	8.0 ± 0.5
<b>Flash Point</b>	63°C
<b>Ignition Point</b>	> 300°
<b>Specific Gravity</b>	0.97 ± 0.01
<b>Refractive Index</b>	1.362 ± 0.005 19 Bx
<b>Viscosity</b>	Not applicable
<b>Relative Foam</b>	Low
<b>Solubility in water</b>	Dispersible

**10 STABILITY AND REACTIVITY:**

Cold Wax is considered stable under normal storage conditions.  
Avoid contamination with oxidising substances.  
Hazardous polymerisation will not occur.  
Combustion will release mostly oxides of carbon and nitrogen.

**11 TOXICOLOGICAL INFORMATION:**

No data is available for Cold Wax

**12 ECOLOGICAL INFORMATION:**

No data is available for Cold Wax

**13 DISPOSAL CONSIDERATIONS:**

Dispose of in accordance with local regulations by recognised waste disposal experts. Incineration is the preferred method.  
Spilled liquids must be absorbed by neutral materials and packed in containers which can be sealed for removal.  
Large spills will require suctioning into suitable tanks, and if not recoverable, disposed of through recognised waste disposal experts.  
Used containers should be rinsed, not recycled, but disposed of in landfill or incinerated.

**14 TRANSPORT INFORMATION:**

NZ Land Transport Rule: Dangerous Goods Rule 2005 Not Hazardous for Land Transport in New Zealand

**15 NZ REGULATORY INFORMATION:**

Hazardous Substances and New Organisms Act (HSNO) 1996 & Classification Regulations 2001 for the product of this concentration:	
Cleaning Products Combustible Products Group Standard:	HSR No :002525.
HSNO Act Controls Regulations 2001 for Cold Wax:	
Limit and monitor exposure during the use of the product	Make use of suitable equipment for handling the product
Wear suitable protective clothing while being used	Do not expose product to any form of fire or ignition source
Limit exposure to the environment	Dispose of waste or spilt material only through a recognised expert company

**16 OTHER INFORMATION:**

Formulation reference and Version number: R9 – 15 Version 2.  
This SDS was prepared from data available on 2 February 2016  
This SDS was printed on 2 February 2016.  
This SDS will be reviewed no later than 2 February 2021

**END OF THIS SAFETY DATA SHEET**

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# SAFETY DATA SHEET

## 1 PRODUCT AND COMPANY IDENTIFICATION:

### Car Kleen HOT WAX

An enhanced water beading aid for automatic carwash systems.

#### CAR KLEEN NEW ZEALAND LTD

2 Te Apunga Place  
 Mt Wellington  
 Auckland 1060  
 New Zealand.

PO Box 112071, Penrose, Auckland, 1642, New Zealand.

Phone: (64-9) 276-1419  
 Fax: (64-9) 276-1962  
 E-mail: [cknz@xtra.co.nz](mailto:cknz@xtra.co.nz)

EMERGENCY CONTACT: Phone (64-9) 276-1419 8.0 to 5.0 Mon to Fri  
 After Hours: National Poisons & Hazardous Chemical Information Centre: 0800-764-766 (0800-POISON)

## 2 HAZARD IDENTIFICATION:

Hazardous Substances and New Organisms Act (HSNO) 1996 & Classification Regulations 2001 for the product of this concentration:

- 3.1D Combustible liquid.
- 6.3A Causes skin irritation.
- 6.4A Causes eye irritation.
- 9.1B Toxic to aquatic life with long lasting effects.

Cleaning Products Combustible Group Standard: HSR No: 2525.

## 3 COMPOSITION & INFORMATION ON INGREDIENTS:

Proprietary mixture of nonionic and cationic surfactants	10 – 20 %
Proprietary oil and wax blend	10 – 20 %
Solvents	2 – 10 %
Water, colouring, preservative	> 50 %

## 4 FIRST AID MEASURES:

Contact with eyes:	Rinse eyes with running water holding back eyelids for 15 minutes. If irritation persists seek medical advice.
Contact with skin:	Wash affected area with copious volumes of water. If clothing is contaminated, remove and wash the affected skin area. If irritation or swelling occurs seek medical advice.
After inhalation:	If the patient is subject to vapourisation, remove from exposure and seek medical advice.
After ingestion:	Do Not Induce Vomiting. Administer 2 glasses of water or milk, and if discomfort persists seek medical advice.
Advice to Doctor:	Treat patient for acute exposure to materials with toxic effects. Have this SDS or a product label on hand.
After Hours:	National Poisons & Hazardous Chemical Information Centre: 0800-764-766 (0800-POISON)

## 5 FIRE FIGHTING MEASURES:

This product is combustible. It will not ignite a fire but will burn if exposed to a fire source. Avoid electrical ignition sources. Containers subject to heat from a fire may explode scattering burning contents. Where possible remove containers from the path of the fire. Otherwise cool with water spray to avoid heating. Firefighters wear SCBA and chemical resistant suits. Foam, CO<sub>2</sub>, or chemical dry powder to extinguish a local fire. Water spray on large fires only.

## 6 ACCIDENTAL RELEASE MEASURES:

Spills on floors will produce a slippery surface. Shut off all possible sources of electrical ignition. Contain minor (less than 100 litres) from local drainage with any suitable bund or barrier. Where the product is water soluble, dilute with water, neutralise if necessary, and then clean up with mops or any suitable absorbant inert material such as Mineral Sponge, paper, rags, sand, or soil. Pack absorbed waste material into open-top drums, which can be closed, for waste disposal. Large spills from drums and IBC's should be contained from drains and diluted with water where possible. Alert the local Fire Brigade. Collect absorbed material in drums which can be closed and sent to landfill. If material does enter drains, alert the local drainage authorities.

## 7 HANDLING AND STORAGE:

Store containers, with secure closures, in sites where they can be kept cool and away from heat and ignition sources. Handle to prevent damage to containers. Should packaging be damaged, repack into clean and dry containers of the same type and mark the product name carefully on the container. Always replace lids and caps after using the product. Return all packages to safe storage as soon as possible after use.

The information contained in this Safety Data Sheet is provided in good faith and is believed to be correct as at the date hereof. However, it is expected that individuals receiving the information will exercise their independent judgement in determining its appropriateness for a particular purpose. The Proprietor makes no representation as to the accuracy or comprehensiveness of the information. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of the use of the product are therefore assumed by the user and we expressly disclaim all warranties of any kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Appropriate warnings and safe handling procedures should be provided to handlers and users.

**8 EXPOSURE CONTROLS & PERSONAL PROTECTION:**

Exposure controls:	No data is available for Hot Wax.
Eye protection:	Safety glasses.
Protective clothing:	Chemically impregnable gloves, work shoes, protective work clothes (an apron or overalls).
Respiratory protection:	Not required for the regular use of this product. If the liquid is being sprayed or vaporised, a face shield and/or respirator must be worn. These operations should be carried out by trained personnel only.
Ventilation:	Where spraying or vaporising is being carried out, ensure there is ready access to eyewash units and safety shower. Also adequate ventilation is provided in the work space.

**9 PHYSICAL AND CHEMICAL PROPERTIES:**

<b>Appearance</b>	Clear Red coloured liquid
<b>Odour</b>	Characteristic
<b>pH</b>	8.0 ± 0.5
<b>Flash Point</b>	65°C
<b>Ignition Point</b>	> 300°
<b>Specific Gravity</b>	0.97 ± 0.01
<b>Refractive Index</b>	1.364 ± 0.005 20 Bx
<b>Viscosity</b>	Not applicable
<b>Relative Foam</b>	Low
<b>Solubility in water</b>	Dispersible

**10 STABILITY AND REACTIVITY:**

Hot Wax is considered stable under normal storage conditions.  
Avoid contamination with oxidising substances.  
Hazardous polymerisation will not occur.  
Combustion will release mostly oxides of carbon and nitrogen.

**11 TOXICOLOGICAL INFORMATION:**

No data is available for Hot Wax

**12 ECOLOGICAL INFORMATION:**

No data is available for Hot Wax

**13 DISPOSAL CONSIDERATIONS:**

Dispose of in accordance with local regulations by recognised waste disposal experts. Incineration is the preferred method.  
Spilled liquids must be absorbed by neutral materials and packed in containers which can be sealed for removal.  
Large spills will require suctioning into suitable tanks, and if not recoverable, disposed of through recognised waste disposal experts.  
Used containers should be rinsed, not recycled, but disposed of in landfill or incinerated.

**14 TRANSPORT INFORMATION:**

NZ Land Transport Rule: Dangerous Goods Rule 2005      Not Hazardous for Land Transport in New Zealand

**15 NZ REGULATORY INFORMATION:**

Hazardous Substances and New Organisms Act (HSNO) 1996 & Classification Regulations 2001 for the product of this concentration:	
Cleaning Products Combustible Products Group Standard:	HSR No: 002525.
HSNO Act Controls Regulations 2001 for Hot Wax:	
Limit and monitor exposure during the use of the product	Make use of suitable equipment for handling the product
Wear suitable protective clothing while being used	Do not expose product to any form of fire or ignition source
Limit exposure to the environment	Dispose of waste or spilt material only through a recognised expert company

**16 OTHER INFORMATION:**

Formulation reference and Version number: R9 – 14 Version 2.  
This SDS was prepared from data available on 2 February 2016.  
This SDS was printed on 2 February 2016.  
This SDS will be reviewed no later than 2 February 2021

**END OF THIS SAFETY DATA SHEET**

The information contained in this Safety Data Sheet is provided in good faith and is believed to be correct as at the date hereof. However, it is expected that individuals receiving the information will exercise their independent judgement in determining its appropriateness for a particular purpose. The Proprietor makes no representation as to the accuracy or comprehensiveness of the information. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of the use of the product are therefore assumed by the user and we expressly disclaim all warranties of any kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Appropriate warnings and safe handling procedures should be provided to handlers and users.

# SAFETY DATA SHEET

## 1 PRODUCT AND COMPANY IDENTIFICATION:

### Car Kleen MAX!GLOSS

Premium Foam Polish for use in automatic carwash systems.

#### CAR KLEEN NEW ZEALAND LTD

2 Te Apunga Place  
 Mt Wellington  
 Auckland 1060  
 New Zealand.

PO Box 112071, Penrose, Auckland, 1642, New Zealand.

Phone: (64-9) 276-1419  
 Fax: (64-9) 276-1962  
 E-mail: [cknz@xtra.co.nz](mailto:cknz@xtra.co.nz)

**EMERGENCY CONTACT:** Phone (64-9) 276-1419 8.0 to 5.0 Mon to Fri  
 After Hours: National Poisons & Hazardous Chemical Information Centre: 0800-764-766 (0800-POISON)

## 2 HAZARD IDENTIFICATION:

Hazardous Substances and New Organisms Act (HSNO) 1996 & Classification Regulations 2001 for the product of this concentration:  
 6.3A Causes skin irritation.  
 6.4A Causes eye irritation.

Cleaning Products Subsidiary Group Standard: HSR No: 002530.

## 3 COMPOSITION & INFORMATION ON INGREDIENTS:

Nonionic surfactant	10 – 20 %
Amphoteric surfactants	10 – 20 %
Silicone fluid	2 – 10 %
Solvent	2 – 10 %
Acetic Acid (neutralised)	< 2 %
Water, colouring, preservative	> 50 %

## 4 FIRST AID MEASURES:

Contact with eyes: Rinse eyes with running water holding back eyelids for several minutes. If irritation persists seek medical advice.  
 Contact with skin: Wash affected area with copious volumes of water. If clothing is contaminated, remove and wash the affected skin area. If irritation or swelling occurs seek medical advice.  
 After inhalation: If the patient is affected by mists or vapour, remove from exposure and seek medical advice.  
 After ingestion: Do Not Induce Vomiting. Administer 2 glasses of water or milk, and if discomfort persists seek medical advice.  
 Advice to Doctor: Treat patient for acute exposure to materials with toxic effects. Have this SDS or a product label on hand.  
**After Hours: National Poisons & Hazardous Chemical Information Centre: 0800-764-766 (0800-POISON)**

## 5 FIRE FIGHTING MEASURES:

This product is neither flammable nor combustible.  
 Drums subject to the heat of a prolonged fire may explode or erupt scattering contents with possibility of enhancing combustion. Where possible remove drums and containers from the path of a fire, or cool with water spray.  
 Firefighters may use water spray, jet, fog, foam, CO2, or dry chemical powder to extinguish a fire in the vicinity.

## 6 ACCIDENTAL RELEASE MEASURES:

Spills on floors will produce a slippery surface. Signage preventing foot traffic should be erected where appropriate.  
 Minor spills (less than 100 litres) should be contained from drainage, diluted with water, neutralised where appropriate, and removed with mops, or absorbed with Mineral Sponge, rags, paper, sand, or soil. It may be possible to drain small spills to town wastewater services where permitted by local authorities.  
 Large spills (drums and IBC's) should be contained from local drainage with any suitable bund or barrier. Clean up with absorbent material such as Mineral Sponge, paper, rags, sand or soil. Where a liquid suction cleaning machine is available, it should be used only after neutralising the spilt product.

## 7 HANDLING AND STORAGE:

Store containers in sites where they can be kept cool and dry and away from heat sources. Liquid products in drums and carboys must have secure closures which fit.  
 Handle to prevent damage to containers. Should packaging be damaged, repack into clean and dry containers of the same type and mark the product name carefully on an easily seen location on the container.  
 After use, always replace lids and caps and return to safe storage as soon as possible.  
 There are no specific transport restraints for this material in secure containers.

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**8 EXPOSURE CONTROLS & PERSONAL PROTECTION:**

Exposure controls:	No data is available for the product
Eye protection:	Safety glasses.
Protective clothing:	Chemically impregnable gloves, work shoes, protective work clothes (an apron or overalls).
Respiratory protection:	Not required for the regular use of this product. If the liquid is being sprayed or vaporised, a face shield and/or respirator must be worn. These operations should be carried out by trained personnel only.
Ventilation:	Where spraying or vaporising is being carried out, ensure there is ready access to eyewash units and safety shower. Also adequate ventilation is provided in the work space.

**9 PHYSICAL AND CHEMICAL PROPERTIES:**

<b>Appearance</b>	Clear yellow coloured liquid
<b>Odour</b>	Characteristic
<b>pH</b>	5.5
<b>Flash Point</b>	Not applicable
<b>Ignition Point</b>	Not applicable
<b>Specific Gravity</b>	1.00
<b>Refractive Index</b>	12.5 Bx
<b>Viscosity</b>	Low
<b>Relative Foam</b>	Low
<b>Solubility in water</b>	Soluble

**10 STABILITY AND REACTIVITY:**

The product is considered stable under normal storage conditions.  
Avoid contamination with oxidising substances.  
Hazardous polymerisation will not occur.  
Combustion will release mostly oxides of carbon and nitrogen.

**11 TOXICOLOGICAL INFORMATION:**

No data is available for the product

**12 ECOLOGICAL INFORMATION:**

No data is available for the product

**13 DISPOSAL CONSIDERATIONS:**

Dispose of in accordance with local regulations by recognised waste disposal experts. Incineration is the preferred method.  
Spilled liquids must be absorbed by neutral materials and packed in containers which can be sealed for removal.  
Large spills will require suctioning into suitable tanks, and if not recoverable, disposed of through recognised waste disposal experts.  
Used containers should be rinsed before recycling.

**14 TRANSPORT INFORMATION:**

NZ Land Transport Rule: Dangerous Goods Rule 2005      Not Hazardous for Land Transport in New Zealand

**15 NZ REGULATORY INFORMATION:**

Hazardous Substances Act (HSNO) 1996 & Classification Regulations 2001 for the product of this concentration:  
Cleaning Products Subsidiary Hazards Group Standard:      HSR No: 002530.

HSNO Act Controls Regulations 2001 for  
Limit and monitor exposure during the use of the product      Make use of suitable equipment for handling the product  
Wear suitable protective clothing while being used  
Limit exposure to the environment      Dispose of waste or spilt material only through a recognised expert company

**16 OTHER INFORMATION:**

Formulation reference and Version number:      Lab S1-100 Version 18.  
This SDS was prepared from data available on 2 February 2016  
This SDS was printed on 2 February 2016.  
This SDS will be reviewed no later than 2 February 2021

**END OF THIS SAFETY DATA SHEET**

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# SAFETY DATA SHEET

## 1 PRODUCT AND COMPANY IDENTIFICATION:

### Car Kleen SHAMPOO

A vehicle detergent for jet foaming applications.

### CAR KLEEN NEW ZEALAND LTD

2 Te Apunga Place  
Mt Wellington  
Auckland 1060  
New Zealand.

PO Box 112071, Penrose, Auckland, 1642, New Zealand.  
Phone: (64-9) 276-1419  
Fax: (64-9) 276-1962  
E-mail: [cknz@xtra.co.nz](mailto:cknz@xtra.co.nz)

EMERGENCY CONTACT: Phone (64-9) 276-1419 8.0 to 5.0 Mon to Fri  
After Hours: National Poisons & Hazardous Chemical Information Centre: 0800-764-766 (0800-POISON)

## 2 HAZARD IDENTIFICATION:

Hazardous Substances and New Organisms Act (HSNO) 1996 & Classification Regulations 2001 for the product of this concentration:  
6.3B Causes mild skin irritation.  
6.4A Causes eye irritation.  
9.1D May be harmful to aquatic life.

Cleaning Products Subsidiary Hazards Group Standard: HSR No 002530

## 3 COMPOSITION & INFORMATION ON INGREDIENTS:

Proprietary blend of nonionic surfactants	2 – 10 %
Water, colouring, preservative	> 50 %

## 4 FIRST AID MEASURES:

Contact with eyes: Rinse eyes with running water holding back eyelids for 5 minutes. If irritation persists seek medical advice.  
Contact with skin: Wash affected area with copious volumes of water. If clothing is contaminated, remove and wash the affected skin area. If irritation or swelling occurs, seek medical advice.  
After inhalation: A non-volatile compound in normal use. But if subject to vapourisation remove the patient from exposure to a restful location and seek medical advice if symptoms persist. If clothing is contaminated, remove and wash before reuse.  
After ingestion: Do Not Induce Vomiting. Administer 2 glasses of water or milk and seek medical advice if discomfort persist.  
Advice to Doctor: Treat the patient for exposure to material with mild toxic effects. Have this SDS or a product label on hand.  
After Hours: National Poisons & Hazardous Chemical Information Centre: 0800-764-766 (0800-POISON)

## 5 FIRE FIGHTING MEASURES:

This product is neither flammable nor combustible.  
Drums subject to the heat of a prolonged fire may explode or erupt scattering contents with possibility of enhancing combustion. Where possible remove drums and containers from the path of a fire, or cool with water spray.  
Firefighters may use water spray, jet, fog, foam, CO<sub>2</sub>, or dry chemical powder to extinguish a fire in the vicinity.

## 6 ACCIDENTAL RELEASE MEASURES:

Spills on floors will produce a slippery surface. Signage preventing foot traffic should be erected where appropriate.  
Minor spills (less than 100 litres) should be contained from drainage, diluted with water, neutralised where appropriate, and removed with mops, or absorbed with Mineral Sponge, rags, paper, sand, or soil. It may be possible to drain small spills to town wastewater services where permitted by local authorities.  
Large spills (drums and IBC's) should be contained from local drainage with any suitable bund or barrier. Clean up with absorbant material such as Mineral Sponge, paper, rags, sand or soil. Where a liquid suction cleaning machine is available, it should be used only after neutralising the spilt product.

## 7 HANDLING AND STORAGE:

Store containers in sites where they can be kept cool and dry and away from heat sources. Liquid products in drums and carboys must have secure closures which fit.  
Handle to prevent damage to containers. Should packaging be damaged, repack into clean and dry containers of the same type and mark the product name carefully on an easily seen location on the container.  
After use, always replace lids and caps and return to safe storage as soon as possible.  
There are no specific transport restraints for this material in secure containers.

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**SDS for Car Kleen SHAMPOO**

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**8 EXPOSURE CONTROLS & PERSONAL PROTECTION:**

Exposure controls: No data is available for the product.  
 Eye protection: Safety glasses.  
 Protective clothing: Chemically impregnable gloves, protective work clothes (a coat, apron or overalls).  
 Respiratory protection: Not required for the regular use of this product. If the liquid is being vaporised, a face shield and/or respirator may be required. These operations should be carried out by trained personnel only.  
 Ventilation: Where spraying or vaporising is being carried out, ensure there is ready access to eyewash units and safety shower. Also ensure adequate ventilation is provided in the work space.

**9 PHYSICAL AND CHEMICAL PROPERTIES:**

<b>Appearance</b>	Clear blue solution
<b>Odour</b>	None
<b>pH</b>	7.0
<b>Flash Point</b>	Not applicable
<b>Ignition Point</b>	Not applicable
<b>Specific Gravity</b>	1.01
<b>Refractive Index</b>	7 %Bx
<b>Viscosity</b>	Not applicable
<b>Relative Foam</b>	High
<b>Solubility in water</b>	Complete

**10 STABILITY AND REACTIVITY:**

The product is considered stable under normal storage conditions.  
 Avoid contamination with oxidising substances.  
 Hazardous polymerisation will not occur.  
 Combustion of this product will release oxides of carbon and nitrogen.

**11 TOXICOLOGICAL INFORMATION:**

No data is available for the product

**12 ECOLOGICAL INFORMATION:**

No data is available for the product

**13 DISPOSAL CONSIDERATIONS:**

Minor spilled liquids (after neutralisation) may be disposed of through town wastewater systems where these are authorised for industrial use. Major spills, which have been collected by machine or on absorbants, should be disposed of by waste disposal experts in accordance with local regulations.  
 Used containers should be rinsed, not recycled, but disposed of in landfill or incinerated.

**14 TRANSPORT INFORMATION:**

NZ Land Transport Rule: Dangerous Goods Rule 2005      Classified as not dangerous for Land Transport in New Zealand

**15 NZ REGULATORY INFORMATION:**

Hazardous Substances and New Organisms Act (HSNO) 1996 & Classification Regulations 2001 for the product of this concentration:  
 Cleaning Products Subsidiary Hazards Group Standard:      HSR No: 002530.  
 HSNO Act Controls Regulations 2001 for the product:  
 Wear gloves and eye safety glasses handling this product      Use good well defined measures to make dilutions  
 Label or mark containers used to hold this product      Keep unused product in secure containers to prevent mistaken use

**16 OTHER INFORMATION:**

Formulation reference and version number: R11-60  
 This SDS was prepared from data available on 2 February 2016  
 This SDS was printed on 2 February 2016.  
 This SDS will be reviewed no later than 2 February 2021

**END OF THIS SAFETY DATA SHEET**

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# SAFETY DATA SHEET

## 1 PRODUCT AND COMPANY IDENTIFICATION:

### Car Kleen TRIFOAM ORANGE

Coloured foaming detergent for jet carwash systems.

#### CAR KLEEN NEW ZEALAND LTD

2 Te Apunga Place  
 Mt Wellington  
 Auckland 1060  
 New Zealand.

PO Box 112071, Penrose, Auckland, 1642, New Zealand.  
 Phone: (64-9) 276-1419  
 Fax: (64-9) 276-1962  
 E-mail: [cknz@xtra.co.nz](mailto:cknz@xtra.co.nz)

**EMERGENCY CONTACT:** Phone (64-9) 276-1419 8.0 to 5.0 Mon to Fri  
**After Hours:** National Poisons & Hazardous Chemical Information Centre: 0800-764-766 (0800-POISON)

## 2 HAZARD IDENTIFICATION:

Hazardous Substances and New Organisms Act (HSNO) 1996 & Classification Regulations 2001 for the product of this concentration:  
 6.3B Causes mild skin irritation.  
 6.4A Causes eye irritation.

Cleaning Products Subsidiary Hazards Group Standard: HSR No: 002530

## 3 COMPOSITION & INFORMATION ON INGREDIENTS:

Anionic Surfactants	20 – 50 %
Water, perfume, preservative, colour	> 50%

## 4 FIRST AID MEASURES:

Contact with eyes: Rinse eyes with running water holding back eyelids for 5 minutes. If irritation persists seek medical advice.  
 Contact with skin: Wash affected area with copious volumes of water. If clothing is contaminated, remove and wash the affected skin area. If irritation or swelling occurs, seek medical advice.  
 After inhalation: A non-volatile compound in normal use. But if subject to vapourisation remove the patient from exposure to a restful location and seek medical advice if symptoms persist. If clothing is contaminated, remove and wash before reuse.  
 After ingestion: Do Not Induce Vomiting. Administer 2 glasses of water or milk and seek medical advice if discomfort persist.  
 Advice to Doctor: Treat the patient for exposure to material with mild toxic effects. Have this SDS or a product label on hand.  
**After Hours:** National Poisons & Hazardous Chemical Information Centre: 0800-764-766 (0800-POISON)

## 5 FIRE FIGHTING MEASURES:

This product is neither flammable nor combustible.  
 Drums subject to the heat of a prolonged fire may explode or erupt scattering contents with possibility of enhancing combustion. Where possible remove drums and containers from the path of a fire, or cool with water spray.  
 Firefighters may use water spray, jet, fog, foam, CO<sub>2</sub>, or dry chemical powder to extinguish a fire in the vicinity.

## 6 ACCIDENTAL RELEASE MEASURES:

Spills on floors will produce a slippery surface. Signage preventing foot traffic should be erected where appropriate.  
 Minor spills (less than 100 litres) should be contained from drainage, diluted with water, neutralised where appropriate, and removed with mops, or absorbed with Mineral Sponge, rags, paper, sand, or soil. It may be possible to drain small spills to town wastewater services where permitted by local authorities.  
 Large spills (drums and IBC's) should be contained from local drainage with any suitable bund or barrier. Clean up with absorbent material such as Mineral Sponge, paper, rags, sand or soil. Where a liquid suction cleaning machine is available, it should be used only after neutralising the spilt product.

## 7 HANDLING AND STORAGE:

Store containers in sites where they can be kept cool and dry and away from heat sources. Liquid products in drums and carboys must have secure closures which fit.  
 Handle to prevent damage to containers. Should packaging be damaged, repack into clean and dry containers of the same type and mark the product name carefully on an easily seen location on the container.  
 After use, always replace lids and caps and return to safe storage as soon as possible.  
 There are no specific transport restraints for this material in secure containers.

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**8 EXPOSURE CONTROLS & PERSONAL PROTECTION:**

Exposure controls: No data is available for the product.  
 Eye protection: Safety glasses.  
 Protective clothing: Chemically impregnable gloves, protective work clothes (a coat, apron or overalls).  
 Respiratory protection: Not required for the regular use of this product. If the liquid is being vaporised, a face shield and/or respirator may be required. These operations should be carried out by trained personnel only.  
 Ventilation: Where spraying or vaporising is being carried out, ensure there is ready access to eyewash units and safety shower. Also ensure adequate ventilation is provided in the work space.

**9 PHYSICAL AND CHEMICAL PROPERTIES:**

<b>Appearance</b>	Clear orange liquid
<b>Odour</b>	None
<b>pH</b>	7.0
<b>Flash Point</b>	Not applicable
<b>Ignition Point</b>	Not applicable
<b>Specific Gravity</b>	1.02
<b>Refractive Index</b>	15 %Bx
<b>Viscosity</b>	Not applicable
<b>Relative Foam</b>	Not applicable
<b>Solubility in water</b>	Complete

**10 STABILITY AND REACTIVITY:**

The product is considered stable under normal storage conditions.  
 Avoid contamination with oxidising substances.  
 Hazardous polymerisation will not occur.  
 Combustion of this product will release oxides of carbon.

**11 TOXICOLOGICAL INFORMATION:**

No data is available for the product.

**12 ECOLOGICAL INFORMATION:**

No data is available for the product  
 Surfactants and solvents used are classed Readily Biodegradable according to the European Union Detergents Regulations #907/2006.

**13 DISPOSAL CONSIDERATIONS:**

Minor spilled liquids (after neutralisation) may be disposed of through town wastewater systems where these are authorised for industrial use.  
 Major spills, which have been collected by machine or on absorbants, should be disposed of by waste disposal experts in accordance with local regulations.  
 Used containers should be rinsed, not recycled, but disposed of in landfill or incinerated.

**14 TRANSPORT INFORMATION:**

NZ Land Transport Rule: Dangerous Goods Rule 2005      Classified as not dangerous for Land Transport in New Zealand

**15 NZ REGULATORY INFORMATION:**

Hazardous Substances and New Organisms Act (HSNO) 1996 & Classification Regulations 2001 for the product of this concentration:  
 Cleaning Products Subsidiary Hazards Group Standard:      HSR No: 002530.  
 HSNO Act Controls Regulations 2001 for the product:  
 Label or mark containers used to hold this product      Keep unused product in secure containers to prevent mistaken use

**16 OTHER INFORMATION:**

Formulation reference and version number:      Lab S2-165.  
 This SDS was prepared from data available on 2 February 2016.  
 This SDS was printed on 2 February 2016.  
 This SDS will be reviewed no later than 2 February 2021

**END OF THIS SAFETY DATA SHEET**

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