Safety Data Sheet

Document group:	34-6308-0	**Version number:**	2.00
Issue Date:	02/08/2020	**Supersedes date:**	17/05/2016

This Safety Data Sheet has been prepared in accordance with the New Zealand, Hazardous Substances (Safety Data Sheets) Notice 2017.

SECTION 1: Identification

1.1. Product identifier
3M™ Perfect-It™ Boat Wash, 09034, 09035

Product Identification Numbers
60-4550-8612-8 60-4550-8613-6

1.2. Recommended use and restrictions on use

Recommended use
Marine

For Industrial or Professional use only

1.3. Supplier's details
Address: 3M New Zealand Ltd, 94 Apollo Drive, Rosedale 0632, Auckland
Telephone: (09) 477 4040
E Mail: innovation@nz.mmm.com
Website: 3m.co.nz

1.4. Emergency telephone number
24 hr Medical Emergency, National Poisons Centre, 0800 764 766 (0800 POISON)

SECTION 2: Hazard identification

Classified as hazardous in accordance with the relevant criteria of the HSNO Act 1996, the Hazardous Substances (Classification) Notice 2017 and Hazardous Substances (Minimum Degrees of Hazard) Notice 2017.
Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

2.1. Classification of the substance or mixture

GHS	HSNO
Serious Eye Damage/Irritation: Category 2	6.4A Irritating to the eye
Skin Corrosion/Irritation: Category 2	6.3A Irritating to the skin
Skin Sensitiser: Category 1	6.5B Skin sensitiser
Acute Aquatic Toxicity: Category 2	9.1D Aquatic toxicity (acute)

Chronic Aquatic Toxicity: Category 3	9.1C Aquatic toxicity (chronic)

2.2. Label elements
SIGNAL WORD
WARNING!

Symbols:
Exclamation mark |

Pictograms

HAZARD STATEMENTS:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280A	Wear eye/face protection.
P280E	Wear protective gloves.
P264B	Wash exposed skin thoroughly after handling.
P272A	Contaminated work clothing must not be allowed out of the workplace.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P321	Specific treatment (see Notes to Physician on this label).

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	% by Weight
Water	7732-18-5	70 - 90
Alcohol Ethoxysulfate (Sodium Salt)	Trade Secret	1 - 5
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Trade Secret	1 - 5
Cocoamidopropylbetaine	Trade Secret	1 - 5
Lauryldimethylamine Oxide	Trade Secret	1 - 5

Sodium Chloride	7647-14-5	1 - 5
Sodium Mono-C10-16-Alkyl Sulfates	Trade Secret	1 - 5
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Trade Secret	1 - 5

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye contact
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.
A product risk assessment is recommended to determine if eye wash facilities may be required when using this product in the workplace.

If swallowed
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1 Information on toxicological effects

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
Material will not burn.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

5.4. Hazchem code: Not applicable.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with water. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

Refer to Section 15 - Controls for more information

7.1. Precautions for safe handling
Keep out of reach of children. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities
Protect from sunlight. Store away from heat.

7.3. Certified handler
Not required

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect vented goggles.

Refer AS/NZS 1336 - Recommended practices for occupational eye protection and for performance specifications AS/NZS 1337, Parts 1 - 6 - Personal eye-protection.

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Refer AS/NZS 1715 - Selection, use and maintenance of respiratory protective equipment and AS/NZS 1716 - Respiratory protective devices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Colour	Bright Yellow
Odour	Pleasant Odour, Fruity Odour, Sweet Clean
Odour threshold	*No data available.*
pH	7.8 - 8.8
Melting point/Freezing point	*Not applicable.*
Boiling point/Initial boiling point/Boiling range	*No data available.*
Flash point	No flash point
Evaporation rate	*No data available.*
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Vapour pressure	*No data available.*
Vapor Density and/or Relative Vapor Density	*No data available.*
Density	1 g/cm3
Relative density	0.995 - 1.042 [*Ref Std:*WATER=1]
Water solubility	Complete
Solubility- non-water	Complete
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*Not applicable.*
Decomposition temperature	*No data available.*
Viscosity/Kinematic Viscosity	150 - 350 mPa-s [@ 25 ºC]
Volatile organic compounds (VOC)	0.1 % weight [*Test Method:*calculated per CARB title 2]
Percent volatile	89.8 % weight [*Test Method:*Estimated]
VOC less H2O & exempt solvents	0.1 lb/gal [*Test Method:*calculated SCAQMD rule 443.1]

Nanoparticles
This material does not contain nanoparticles.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non reactive under normal use conditions

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Heat.

10.5 Incompatible materials
None known.

10.6 Hazardous decomposition products

Substance	Condition
Carbon monoxide.	Not specified.
Carbon dioxide.	Not specified.
Irritant vapours or gases.	Not specified.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact
Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact
Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value

Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Sodium Mono-C10-16-Alkyl Sulfates	Dermal	Rat	LD50 > 2,000 mg/kg
Sodium Mono-C10-16-Alkyl Sulfates	Ingestion	Rat	LD50 977 mg/kg
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Dermal	Rat	LD50 > 2,000 mg/kg
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Ingestion	Rat	LD50 578 mg/kg
Alcohol Ethoxysulfate (Sodium Salt)	Dermal	Rat	LD50 > 2,000 mg/kg
Alcohol Ethoxysulfate (Sodium Salt)	Ingestion	Rat	LD50 2,870 mg/kg
Lauryldimethylamine Oxide	Ingestion	Mouse	LD50 2,700 mg/kg
Lauryldimethylamine Oxide	Dermal	Rabbit	LD50 3,536 mg/kg
Cocoamidopropylbetaine	Dermal	Rat	LD50 > 2,000 mg/kg
Cocoamidopropylbetaine	Ingestion	Rat	LD50 > 1,500 mg/kg
Sodium Chloride	Dermal	Rabbit	LD50 > 10,000 mg/kg
Sodium Chloride	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 10.5 mg/l
Sodium Chloride	Ingestion	Rat	LD50 3,550 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Sodium Mono-C10-16-Alkyl Sulfates	Rabbit	Irritant
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Rabbit	Mild irritant
Alcohol Ethoxysulfate (Sodium Salt)	Rabbit	Irritant
Cocoamidopropylbetaine	Rabbit	Mild irritant
Sodium Chloride	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Sodium Mono-C10-16-Alkyl Sulfates	Rabbit	Corrosive
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Rabbit	Corrosive
Alcohol Ethoxysulfate (Sodium Salt)	Rabbit	Corrosive
Cocoamidopropylbetaine	Rabbit	Corrosive
Sodium Chloride	Rabbit	Mild irritant

Sensitisation:

Skin Sensitisation

Name	Species	Value
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Guinea pig	Not classified
Alcohol Ethoxysulfate (Sodium Salt)	Guinea pig	Not classified
Cocoamidopropylbetaine	Multiple animal species	Not classified
Lauryldimethylamine Oxide	Guinea pig	Not classified

Respiratory Sensitisation

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value

Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	In Vitro	Not mutagenic
Alcohol Ethoxysulfate (Sodium Salt)	In Vitro	Not mutagenic
Alcohol Ethoxysulfate (Sodium Salt)	In vivo	Not mutagenic
Cocoamidopropylbetaine	In Vitro	Not mutagenic
Cocoamidopropylbetaine	In vivo	Not mutagenic
Sodium Chloride	In Vitro	Some positive data exist, but the data are not sufficient for classification
Sodium Chloride	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Dermal	Rat	Not carcinogenic
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Ingestion	Rat	Not carcinogenic
Sodium Chloride	Ingestion	Rat	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Ingestion	Not classified for female reproduction	Rat	NOAEL 871 mg/kg	2 generation
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Ingestion	Not classified for male reproduction	Rat	NOAEL 891 mg/kg	2 generation
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Ingestion	Not classified for development	Rabbit	NOAEL 600 mg/kg	during organogenesis
Alcohol Ethoxysulfate (Sodium Salt)	Ingestion	Not classified for female reproduction	Rat	NOAEL 300 mg/kg/day	2 generation
Alcohol Ethoxysulfate (Sodium Salt)	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	2 generation
Alcohol Ethoxysulfate (Sodium Salt)	Ingestion	Not classified for development	Rat	NOAEL 300 mg/kg/day	2 generation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Sodium Mono-C10-16-Alkyl Sulfates	Inhalation	respiratory irritation	May cause respiratory irritation	similar health hazards	NOAEL Not available	
Alcohol Ethoxysulfate (Sodium Salt)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Cocoamidopropylbetaine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Ingestion	liver	Not classified	Rat	NOAEL 500 mg/kg/day	6 months
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 500 mg/kg	6 months
Alcohol Ethoxysulfate (Sodium Salt)	Dermal	skin | heart | endocrine system | gastrointestinal tract | hematopoietic	Not classified	Mouse	NOAEL 6.91 mg/day	90 days

		system | liver | immune system | nervous system | eyes | kidney and/or bladder | respiratory system | vascular system				
Alcohol Ethoxysulfate (Sodium Salt)	Ingestion	blood | eyes	Not classified	Rat	NOAEL 225 mg/kg/day	90 days
Cocoamidopropylbetaine	Ingestion	heart | endocrine system | hematopoietic system | liver | nervous system | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	92 days
Sodium Chloride	Ingestion	blood | kidney and/or bladder | vascular system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2,240 mg/kg/day	9 months
Sodium Chloride	Ingestion	nervous system | eyes	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,700 mg/kg/day	90 days
Sodium Chloride	Ingestion	liver | respiratory system	Not classified	Rat	NOAEL 33 mg/kg/day	90 days

Aspiration Hazard
For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity
Ecotoxic to the aquatic environment.
Acute Aquatic Toxicity: Category 2 (HSNO 9.1D Aquatic toxicity)
Chronic Aquatic Toxicity: Category 3 (HSNO 9.1C Aquatic toxicity)

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
Alcohol Ethoxysulfate (Sodium Salt)	68585-34-2	Green algae	Estimated	72 hours	EC50	27.7 mg/l
Alcohol Ethoxysulfate (Sodium Salt)	68585-34-2	Water flea	Estimated	48 hours	EC50	7.4 mg/l
Alcohol Ethoxysulfate (Sodium Salt)	68585-34-2	Zebra Fish	Estimated	96 hours	LC50	7.1 mg/l
Alcohol Ethoxysulfate (Sodium Salt)	68585-34-2	Green algae	Estimated	72 hours	NOEC	0.95 mg/l

Alcohol Ethoxysulfate (Sodium Salt)	68585-34-2	Rainbow trout	Estimated	28 days	NOEC	0.14 mg/l
Alcohol Ethoxysulfate (Sodium Salt)	68585-34-2	Water flea	Estimated	7 days	NOEC	0.06 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Algae other	Estimated	96 hours	EC50	0.9 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Water flea	Estimated	48 hours	EC50	1.62 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Zebra Fish	Estimated	96 hours	LC50	0.6 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Algae other	Estimated	96 hours	NOEC	0.3 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Fathead minnow	Estimated	30 days	NOEC	1 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Water flea	Estimated	21 days	NOEC	0.3 mg/l
Cocoamidopropylbetaine	61789-40-0	Common Carp	Experimental	96 hours	LC50	1.9 mg/l
Cocoamidopropylbetaine	61789-40-0	Green algae	Experimental	96 hours	EC50	0.55 mg/l
Cocoamidopropylbetaine	61789-40-0	Water flea	Experimental	24 hours	EC50	1.1 mg/l
Cocoamidopropylbetaine	61789-40-0	Green algae	Experimental	72 hours	NOEC	0.09 mg/l
Cocoamidopropylbetaine	61789-40-0	Water flea	Experimental	21 days	NOEC	0.9 mg/l
Lauryldimethylamine Oxide	1643-20-5	Green algae	Experimental	72 hours	EC50	0.11 mg/l
Lauryldimethylamine Oxide	1643-20-5	Ricefish	Experimental	96 hours	LC50	30 mg/l
Lauryldimethylamine Oxide	1643-20-5	Water flea	Experimental	48 hours	EC50	2.2 mg/l
Lauryldimethylamine Oxide	1643-20-5	Fathead minnow	Experimental	302 days	NOEC	0.42 mg/l
Lauryldimethyl	1643-20-5	Green algae	Experimental	72 hours	NOEC	0.0049 mg/l

amine Oxide						
Lauryldimethyl amine Oxide	1643-20-5	Water flea	Experimental	21 days	NOEC	0.36 mg/l
Sodium Chloride	7647-14-5	Algae other	Experimental	96 hours	EC50	2,430 mg/l
Sodium Chloride	7647-14-5	Bluegill	Experimental	96 hours	LC50	5,840 mg/l
Sodium Chloride	7647-14-5	Water flea	Experimental	48 hours	LC50	874 mg/l
Sodium Chloride	7647-14-5	Fathead minnow	Experimental	33 days	NOEC	252 mg/l
Sodium Chloride	7647-14-5	Water flea	Experimental	21 days	NOEC	314 mg/l
Sodium Mono-C10-16-Alkyl Sulfates	68585-47-7		Data not available or insufficient for classification			
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	68439-57-6	Diatom	Experimental	72 hours	EC50	5.2 mg/l
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	68439-57-6	Water flea	Experimental	48 hours	EC50	3.48 mg/l
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	68439-57-6	Zebra Fish	Experimental	96 hours	LC50	2.6 mg/l
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	68439-57-6	Diatom	Experimental	72 hours	Effect Concentration 10%	3.9 mg/l
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	68439-57-6	Water flea	Experimental	21 days	NOEC	6.3 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Alcohol Ethoxysulfate (Sodium Salt)	68585-34-2	Estimated Biodegradation	28 days	Dissolv. Organic Carbon Deplet	100 % removal of DOC	Other methods
Benzenesulfoni	68081-81-2	Estimated	28 days	Dissolv.	94 % weight	OECD 301A - DOC

c acid, mono-C10-16-alkyl derivs., sodium salts		Biodegradation		Organic Carbon Deplet		Die Away Test
Cocoamidopropylbetaine	61789-40-0	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	100 % removal of DOC	OECD 301E - Modified OECD Scre
Lauryldimethylamine Oxide	1643-20-5	Experimental Biodegradation	28 days	CO2 evolution	95.27 % weight	OECD 301B - Modified sturm or CO2
Sodium Chloride	7647-14-5	Data not availbl-insufficient			N/A	
Sodium Mono-C10-16-Alkyl Sulfates	68585-47-7	Experimental Biodegradation	30 days	BOD	>60 % BOD/ThBOD	OECD 301D - Closed bottle test
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	68439-57-6	Experimental Biodegradation	28 days	CO2 evolution	80 % weight	OECD 301B - Modified sturm or CO2

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Alcohol Ethoxysulfate (Sodium Salt)	68585-34-2	Experimental BCF-Carp	72 hours	Bioaccumulation factor	18	Other methods
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Estimated BCF - Fathead Mi	28 days	Bioaccumulation factor	245	
Cocoamidopropylbetaine	61789-40-0	Estimated Bioconcentration		Log Kow	0.69	Other methods
Lauryldimethylamine Oxide	1643-20-5	Estimated Bioconcentration		Log Kow	1.85	Other methods
Sodium Chloride	7647-14-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Sodium Mono-C10-16-Alkyl Sulfates	68585-47-7	Experimental BCF-Carp		Bioaccumulation factor	≤73	Other methods
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	68439-57-6	Estimated Bioconcentration		Log Kow	-1.3	Other methods

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

The surfactant(s) contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

SECTION 13: Disposal considerations

13.1. Disposal methods
In accordance with the Hazardous Substances (Disposal) Notice 2017 and the relevant criteria of the HSNO Act 1996.

Dispose of waste product in a permitted industrial waste facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

Packaging (that may or may not contain any residual substance) may be lawfully disposed of by householders or other consumers through public or commercial waste collection services.

SECTION 14: Transport Information

New Zealand Land Transport Rule: Dangerous Goods - Road/Rail Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

Hazchem Code: Not applicable.
IERG: Not applicable.

International Air Transport Association (IATA) - Air Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.

International Maritime Dangerous Goods Code (IMDG) - Marine Transport
UN No.: Not applicable.
Proper Shipping Name: Not applicable.
Class/Division: Not applicable.
Sub Risk: Not applicable.
Packing Group: Not applicable.
Marine Pollutant: Not applicable.

SECTION 15: Regulatory information

HSNO Approval number	HSR002530
Group standard name	Cleaning Products (Subsidiary Hazard) Group Standard 2017
HSNO Hazard classification	Refer to Section 2: Hazard identification

NZ Inventory of Chemicals (NZIoC) Status
All applicable chemical ingredients in this material are in compliance with NZIoC listing requirements.

Controls in accordance with the Health and Safety at Work (Hazardous Substances) Regulations 2017

Certified handler	Not required
Location Compliance Certificate	Not required
Hazardous atmosphere zone	Not required
Fire extinguishers	Not required
Emergency response plan	1,000 L or 1,000 kg (for a HSNO 6.1D, 6.5A, 6.5B, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for a HSNO 6.6A, 6.8A, 6.9A, 8.3A, 9.1D substance)
Secondary containment	1,000 L or 1,000 kg (for a HSNO 6.1D, 6.5A, 6.5B, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for a HSNO 6.6A, 6.8A, 6.9A, 8.3A, 9.1D substance)
Tracking	Not required
Warning signage	1,000 L or 1,000 kg (for a HSNO 8.3A, 9.1B or 9.1C substance); or 10,000 L or 10,000 kg (for a HSNO 6.1D or 9.1D substance)

SECTION 16: Other information

Revision information:
Complete document review.

Document group:	34-6308-0	**Version number:**	2.00
Issue Date:	02/08/2020	**Supersedes date:**	17/05/2016

Key to abbreviations and acronyms
GHS means the Globally Harmonised System of Classification and Labelling of Chemicals, 5th revised edition 2013
HSNO means Hazardous Substances and New Organisms Act 1996

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