Safety Data Sheet

This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

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SECTION 1: Identification

1.1. Product identifier
3M™ Car Wash Soap, 38079, 38378, 38377, 39000

Product Identification Numbers
LB-K100-1373-7 60-4550-6425-7 60-4550-6426-5 60-4550-6427-3 60-4550-6656-7 60-4550-6657-5

1.2. Recommended use and restrictions on use

Recommended use
Automotive., Car Wash Soap

1.3. Supplier's details
Address: 3M Technologies (S) Pte Ltd,10 Ang Mo Kio Street 65, Singapore 569059
Telephone: +65 6450 8888
Website: www.3m.com.sg

1.4. Emergency telephone number
+65 6591 6601 (8.15am - 5.00pm, Monday - Friday)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Serious Eye Damage/Irritation: Category 2A
Skin Corrosion/Irritation: Category 2.

2.2. Label elements
SIGNAL WORD
WARNING!

Symbols
Exclamation mark |

Pictograms

HAZARD STATEMENTS

H319	Causes serious eye irritation.
H315	Causes skin irritation.

PRECAUTIONARY STATEMENTS

Prevention:

P280E	Wear protective gloves.

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.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Water	7732-18-5	60 - 100
Sodium Mono-C10-16-Alkyl Sulfates	68585-47-7	1 - 5
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	68439-57-6	1 - 5
Alcohol Ethoxysulfate (Sodium Salt)	68585-34-2	1 - 5
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	1 - 5
Cocoamidopropylbetaine	61789-40-0	1 - 5
Dodecyldimethylamine oxide	1643-20-5	< 3
Sodium Chloride	7647-14-5	0.5 - 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.

If swallowed

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

4.2. Most important symptoms and effects, both acute and delayed
No critical symptoms or effects. 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.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.

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

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

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. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from oxidising agents.

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.

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

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 vapours and particulates

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Color	Orange-Red
Odor	Cherry
Odour threshold	*No data available.*
pH	9 - 10
Melting point/Freezing point	*No data available.*
Boiling point/Initial boiling point/Boiling range	100 ºC
Flash point	Flash point > 93 °C (200 °F)
Evaporation rate	*No data available.*
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Vapour pressure	*No data available.*
Vapor Density and/or Relative Vapor Density	*No data available.*
Density	1 g/ml
Relative density	1 [*Ref Std:*WATER=1]
Water solubility	Complete

Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Autoignition temperature	*No data available.*
Decomposition temperature	*No data available.*
Viscosity/Kinematic Viscosity	400 - 800 mPa-s
Volatile organic compounds (VOC)	2 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Volatile organic compounds (VOC)	0.2 % weight [*Test Method:*calculated per CARB title 2]
Percent volatile	88.8 % weight
VOC less H2O & exempt solvents	15 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Molecular weight	*No data available.*

SECTION 10: Stability and reactivity

10.1 Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

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
Strong oxidising agents.

10.6 Hazardous decomposition products

Substance	**Condition**
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

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.

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	Ingestion	Rat	LD50 1,830 mg/kg
Sodium Mono-C10-16-Alkyl Sulfates	Dermal	similar compounds	LD50 > 2,000 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
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Dermal	Rat	LD50 > 2,000 mg/kg
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Ingestion	Rat	LD50 1,080 mg/kg
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Inhalation-Dust/Mist (4 hours)	similar compounds	LC50 0.31 mg/l
Cocoamidopropylbetaine	Dermal	Rat	LD50 > 2,000 mg/kg
Cocoamidopropylbetaine	Ingestion	Rat	LD50 > 1,500 mg/kg
Dodecyldimethylamine oxide	Dermal	similar compounds	LD50 > 2,000 mg/kg
Dodecyldimethylamine oxide	Ingestion	similar compounds	LD50 1,064 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
Overall product	In vitro data	Irritant
Sodium Mono-C10-16-Alkyl Sulfates	similar compounds	Irritant
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Rabbit	Mild irritant
Alcohol Ethoxysulfate (Sodium Salt)	Rabbit	Irritant
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Rabbit	Irritant
Cocoamidopropylbetaine	Rabbit	Mild irritant
Dodecyldimethylamine oxide	similar compounds	Irritant
Sodium Chloride	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Overall product	In vitro data	Severe irritant
Sodium Mono-C10-16-Alkyl Sulfates	similar compounds	Corrosive
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Rabbit	Corrosive
Alcohol Ethoxysulfate (Sodium Salt)	Rabbit	Corrosive
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Rabbit	Corrosive
Cocoamidopropylbetaine	Rabbit	Corrosive
Dodecyldimethylamine oxide	similar compounds	Corrosive
Sodium Chloride	Rabbit	Mild irritant

Sensitization:

Skin Sensitisation

Name	Species	Value
Sodium Mono-C10-16-Alkyl Sulfates	similar compounds	Not classified
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	Guinea pig	Not classified
Alcohol Ethoxysulfate (Sodium Salt)	Guinea pig	Not classified
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Guinea pig	Not classified
Cocoamidopropylbetaine	Multiple animal species	Not classified
Dodecyldimethylamine 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
Sodium Mono-C10-16-Alkyl Sulfates	In Vitro	Not mutagenic
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
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	In Vitro	Not mutagenic
Cocoamidopropylbetaine	In Vitro	Not mutagenic
Cocoamidopropylbetaine	In vivo	Not mutagenic
Dodecyldimethylamine oxide	In Vitro	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

Benzenesulfonic acid, mono-C10-16-alkyl derivs., 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
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Ingestion	Not classified for male reproduction	Rat	NOAEL 350 mg/kg/day	3 generation
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Ingestion	Not classified for female reproduction	Rat	NOAEL 350 mg/kg/day	3 generation
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Dermal	Not classified for development	Rabbit	NOAEL 90 mg/kg/day	during gestation
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Ingestion	Not classified for development	Rat	NOAEL 780 mg/kg/day	during gestation

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 compounds	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	
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	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	
Dodecyldimethylamine oxide	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	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 system | liver | immune system |	Not classified	Mouse	NOAEL 6.91 mg/day	90 days

		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
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Ingestion	liver | kidney and/or bladder	Not classified	Rat	NOAEL 250 mg/kg/day	10 weeks
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	Ingestion	heart | endocrine system | hematopoietic system	Not classified	Rat	NOAEL 250 mg/kg/day	12 weeks
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
Dodecyldimethylamine oxide	Ingestion	eyes	Some positive data exist, but the data are not sufficient for classification	similar compounds	NOAEL 88 mg/kg/day	90 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

Acute aquatic hazard:
GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:
GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Alcohol Ethoxysulfate (Sodium Salt)	68585-34-2	Bacteria	Estimated	16 hours	EC10	>10,000 mg/l
Alcohol	68585-34-2	Green algae	Estimated	72 hours	EC50	27.7 mg/l

Ethoxysulfate (Sodium Salt)						
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 or other aquatic plants	Analogous Compound	96 hours	ErC50	0.9 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Water flea	Analogous Compound	48 hours	EC50	1.62 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Zebra Fish	Analogous Compound	96 hours	LC50	0.6 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Algae or other aquatic plants	Analogous Compound	96 hours	NOEC	0.3 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Fathead minnow	Analogous Compound	30 days	NOEC	1 mg/l
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Water flea	Analogous Compound	21 days	NOEC	0.3 mg/l
Cocoamidopropylbetaine	61789-40-0	Bacteria	Experimental	30 minutes	NOEC	>3,000 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
Sodium Mono-C10-16-Alkyl Sulfates	68585-47-7	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	68439-57-6	Activated sludge	Experimental	3 hours	EC50	230 mg/l
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	68439-57-6	Diatom	Experimental	72 hours	ErC50	5.2 mg/l
Sulfonic Acids, C14-16-Alkane	68439-57-6	Water flea	Experimental	48 hours	EC50	3.48 mg/l

Hydroxy and C14-16 Alkene, Sodium Salts						
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	ErC10	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
Dodecyldimethylamine oxide	1643-20-5	Green algae	Experimental	72 hours	ErC50	0.11 mg/l
Dodecyldimethylamine oxide	1643-20-5	Medaka	Experimental	96 hours	LC50	30 mg/l
Dodecyldimethylamine oxide	1643-20-5	Water flea	Experimental	48 hours	EC50	2.2 mg/l
Dodecyldimethylamine oxide	1643-20-5	Fathead minnow	Experimental	302 days	NOEC	0.42 mg/l
Dodecyldimethylamine oxide	1643-20-5	Green algae	Experimental	72 hours	NOEC	0.0049 mg/l
Dodecyldimethylamine oxide	1643-20-5	Water flea	Experimental	21 days	NOEC	0.36 mg/l
Sodium Chloride	7647-14-5	Activated sludge	Experimental	N/A	NOEC	8,000 mg/l
Sodium Chloride	7647-14-5	Algae or other aquatic plants	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

12.2. Persistence and degradability

Material	CAS Nbr	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	
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Analogous Compound Biodegradation	28 days	Dissolv. Organic Carbon Deplet	94 %removal of DOC	OECD 301A - DOC Die Away Test
Cocoamidopropylbetaine	61789-40-0	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	100 %removal of DOC	OECD 301E - Modif. OECD Screen
Sodium Mono-C10-16-Alkyl Sulfates	68585-47-7	Experimental Biodegradation	30 days	BOD	>60 %BOD/ThOD	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 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Dodecyldimethylamine oxide	1643-20-5	Experimental Biodegradation	28 days	CO2 evolution	95.27 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Sodium Chloride	7647-14-5	Data not available-	N/A	N/A	N/A	N/A

		insufficient				

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Alcohol Ethoxysulfate (Sodium Salt)	68585-34-2	Experimental BCF - Fish	72 hours	Bioaccumulation factor	18	
Benzenesulfonic acid, mono-C10-16-alkyl derivs., sodium salts	68081-81-2	Analogous Compound BCF - Fish	28 days	Bioaccumulation factor	245	
Cocoamidopropylbetaine	61789-40-0	Estimated Bioconcentration		Log Kow	0.69	
Sodium Mono-C10-16-Alkyl Sulfates	68585-47-7	Experimental BCF - Fish		Bioaccumulation factor	≤73	
Sulfonic Acids, C14-16-Alkane Hydroxy and C14-16 Alkene, Sodium Salts	68439-57-6	Analogous Compound Bioconcentration		Log Kow	-1.3	EC A.8 Partition Coefficient
Dodecyldimethylamine oxide	1643-20-5	Estimated Bioconcentration		Log Kow	1.85	
Sodium Chloride	7647-14-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

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.

SECTION 14: Transport Information

International Regulations

UN No.: None assigned
UN Proper shipping name: None assigned

Transportation Class (IMO): None assigned
Transportation Class (IATA): None assigned
Other Dangerous Goods Descriptions (IMO): None assigned
Other Dangerous Goods Descriptions (IATA): None assigned
Packing Group: None assigned
Marine pollutant: None assigned

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status
Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

This product may contain component(s) that are regulated by the following:
Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations: this product is subject to SDS, labelling, PEL and other requirements in the Act/Regulations.

SECTION 16: Other information

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Singapore SDSs are available at www.3m.com.sg