

# **Safety Data Sheet**

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This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

# **SECTION 1: Identification**

#### 1.1. Product identifier

3M<sup>™</sup> Glass Cleaner and Protector, Ready-To-Use

 Product Identification Numbers

 70-0715-9584-0
 70-0716-5815-0
 UU-0016-3105-8

#### 1.2. Recommended use and restrictions on use

#### Recommended use

Hard Surface Cleaner

For Industrial or Professional use only

#### 1.3. Supplier's details

ADDRESS:3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301<br/>Petaling, Jaya, SelangorTelephone:03-7884 2888E Mail:3mmyehsr@mmm.comWebsite:www.3M.com.my

## 1.4. Emergency telephone number

+60 03-7884 2888

# **SECTION 2: Hazard identification**

#### 2.1. Classification of the substance or mixture

Not classified as hazardous according to Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

## 2.2. Label elements

**Signal word** Not applicable.

Symbols

Not applicable.

#### Pictograms

Not applicable.

## 2.3. Other hazards

None known

# **SECTION 3: Composition/information on ingredients**

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Water	7732-18-5	> 99
ETHOXYLATED C9-11 ALCOHOLS	68439-46-3	< 1
Isopropyl Alcohol	67-63-0	< 1
SODIUM LAURYL SULFATE	151-21-3	< 1
Non-Ionic Surfactants (NJTSRN 04499600- 6633)	Trade Secret	<1
5-chloro-2-methyl-4-isothiazoline-3-one	26172-55-4	< 0.001
2-Methyl-4-isothiazoline-3-one	2682-20-4	< 0.0004

# **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:**

Wash with soap and water. If signs/symptoms develop, get medical attention.

#### Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If Swallowed: No need for first aid is anticipated.

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. Use a fire fighting agent suitable for the surrounding fire.

## 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

## Hazardous Decomposition or By-Products

<u>Substance</u> Carbon monoxide Carbon dioxide <u>Condition</u> During Combustion 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

Ventilate the area with fresh air. Observe precautions from other sections.

#### **6.2.** Environmental precautions

Avoid release to the environment.

#### 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 release to the environment.

#### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

# **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

#### **Occupational exposure limits**

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Isopropyl Alcohol	67-63-0	ACGIH	TWA:200 ppm;STEL:400 ppm	A4: Not class. as human
				carcin
Isopropyl Alcohol	67-63-0	Malaysia OELs	TWA(8 hours):983	
		-	mg/m3(400 ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists

CMRG : Chemical Manufacturer's Recommended Guidelines

Malaysia OELs : Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit CEIL: Ceiling

#### 8.2. Exposure controls

#### 8.2.1. Engineering controls

Use in a well-ventilated area.

#### **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: Safety Glasses with side shields

### Skin/hand protection

No chemical protective gloves are required.

#### **Respiratory protection**

None required.

# **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Information on basic physical and chemical properties				
Physical state	Liquid			
Color	Light Blue			
Odor	Apple			
Odor threshold	No Data Available			
рН	6.5 - 8.5 Units not avail. or not appl.			
Melting point/Freezing point	No Data Available			
Boiling point/Initial boiling point/Boiling range	100 °C			
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			
Vapor Pressure	No Data Available			
Vapor Density and/or Relative Vapor Density	No Data Available			
Density	No Data Available			
Relative Density	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	5 mPa-s - 10 mPa-s			
Volatile Organic Compounds	< 0.1 %			
Percent volatile				
VOC Less H2O & Exempt Solvents	< 2,000 g/l			
Molecular weight	No Data Available			

### 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 polymerization will not occur.

**10.4. Conditions to avoid** None known.

# **10.5. Incompatible materials** None known.

## 10.6. Hazardous decomposition products

Substance None known.

#### **Condition**

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 labeling, 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:

Sprayed material may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

#### **Skin Contact:**

Contact with the skin during product use is not expected to result in significant irritation.

#### Eye Contact:

Sprayed material may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

#### **Ingestion:**

No known health effects.

#### **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	Ingestion		No data available; calculated ATE >5,000 mg/kg
Non-Ionic Surfactants (NJTSRN 04499600-6633)	Dermal	Rabbit	LD50 > 11,200 mg/kg
Non-Ionic Surfactants (NJTSRN 04499600-6633)	Ingestion	Rat	LD50 3,730 mg/kg
Isopropyl Alcohol	Dermal	Rabbit	LD50 12,870 mg/kg
Isopropyl Alcohol	Inhalation-	Rat	LC50 72.6 mg/l
	Vapor (4		
	hours)		
Isopropyl Alcohol	Ingestion	Rat	LD50 4,710 mg/kg
ETHOXYLATED C9-11 ALCOHOLS	Dermal	Rabbit	LD50 > 2,000 mg/kg
ETHOXYLATED C9-11 ALCOHOLS	Ingestion	Rat	LD50 1,378 mg/kg

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SODIUM LAURYL SULFATE	Dermal	Rabbit	LD50 580 mg/kg
SODIUM LAURYL SULFATE	Inhalation-	Rat	LC50 > 0.975 mg/l
	Dust/Mist		
	(4 hours)		
SODIUM LAURYL SULFATE	Ingestion	Rat	LD50 1,650 mg/kg
5-chloro-2-methyl-4-isothiazoline-3-one	Dermal	Rabbit	LD50 87 mg/kg
5-chloro-2-methyl-4-isothiazoline-3-one	Inhalation-	Rat	LC50 0.33 mg/l
	Dust/Mist		
	(4 hours)		
5-chloro-2-methyl-4-isothiazoline-3-one	Ingestion	Rat	LD50 40 mg/kg
2-Methyl-4-isothiazoline-3-one	Dermal	Rabbit	LD50 87 mg/kg
2-Methyl-4-isothiazoline-3-one	Inhalation-	Rat	LC50 0.33 mg/l
	Dust/Mist		
	(4 hours)		
2-Methyl-4-isothiazoline-3-one	Ingestion	Rat	LD50 40 mg/kg

 $\overline{\text{ATE}}$  = acute toxicity estimate

## Skin Corrosion/Irritation

Name	Species	Value
Isopropyl Alcohol	Multiple	No significant irritation
	animal	
	species	
ETHOXYLATED C9-11 ALCOHOLS	Rabbit	Irritant
SODIUM LAURYL SULFATE	Rabbit	Irritant
5-chloro-2-methyl-4-isothiazoline-3-one	Rabbit	Corrosive
2-Methyl-4-isothiazoline-3-one	Rabbit	Corrosive

## Serious Eye Damage/Irritation

Name	Species	Value
Isopropyl Alcohol	Rabbit	Severe irritant
ETHOXYLATED C9-11 ALCOHOLS	Professio nal judgemen t	Corrosive
SODIUM LAURYL SULFATE	Rabbit	Corrosive
5-chloro-2-methyl-4-isothiazoline-3-one	Rabbit	Corrosive
2-Methyl-4-isothiazoline-3-one	Rabbit	Corrosive

# Sensitization:

## **Skin Sensitization**

Name	Species	Value
	-	
Isopropyl Alcohol	Guinea	Not classified
	pig	
ETHOXYLATED C9-11 ALCOHOLS	Guinea	Not classified
	pig	
5-chloro-2-methyl-4-isothiazoline-3-one	Human	Sensitizing
	and	
	animal	
2-Methyl-4-isothiazoline-3-one	Human	Sensitizing
	and	
	animal	

# Photosensitization

Name	Species	Value
5-chloro-2-methyl-4-isothiazoline-3-one	Human	Not sensitizing
	and	
	animal	
2-Methyl-4-isothiazoline-3-one	Human	Not sensitizing

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and
animal

## **Respiratory Sensitization**

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

## Germ Cell Mutagenicity

Name	Route	Value
Isopropyl Alcohol	In Vitro	Not mutagenic
Isopropyl Alcohol	In vivo	Not mutagenic
ETHOXYLATED C9-11 ALCOHOLS	In Vitro	Not mutagenic
5-chloro-2-methyl-4-isothiazoline-3-one	In vivo	Not mutagenic
5-chloro-2-methyl-4-isothiazoline-3-one	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
2-Methyl-4-isothiazoline-3-one	In vivo	Not mutagenic
2-Methyl-4-isothiazoline-3-one	In Vitro	Some positive data exist, but the data are not
		sufficient for classification

# Carcinogenicity

Name	Route	Species	Value
Isopropyl Alcohol	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
5-chloro-2-methyl-4-isothiazoline-3-one	Dermal	Mouse	Not carcinogenic
5-chloro-2-methyl-4-isothiazoline-3-one	Ingestion	Rat	Not carcinogenic
2-Methyl-4-isothiazoline-3-one	Dermal	Mouse	Not carcinogenic
2-Methyl-4-isothiazoline-3-one	Ingestion	Rat	Not carcinogenic

## **Reproductive Toxicity**

### **Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Isopropyl Alcohol	Ingestion	Not classified for development	Rat	NOAEL 400 mg/kg/day	during organogenesis
Isopropyl Alcohol	Inhalation	Not classified for development	Rat	LOAEL 9 mg/l	during gestation
ETHOXYLATED C9-11 ALCOHOLS	Dermal	Not classified for female reproduction	Rat	NOAEL 250 mg/kg/day	2 generation
ETHOXYLATED C9-11 ALCOHOLS	Dermal	Not classified for development	Rat	NOAEL 250 mg/kg/day	2 generation
ETHOXYLATED C9-11 ALCOHOLS	Dermal	Not classified for male reproduction	Rat	NOAEL 100 mg/kg/day	2 generation
5-chloro-2-methyl-4-isothiazoline-3-one	Ingestion	Not classified for female reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
5-chloro-2-methyl-4-isothiazoline-3-one	Ingestion	Not classified for male reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
5-chloro-2-methyl-4-isothiazoline-3-one	Ingestion	Not classified for development	Rat	NOAEL 15 mg/kg/day	during organogenesis
2-Methyl-4-isothiazoline-3-one	Ingestion	Not classified for female reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
2-Methyl-4-isothiazoline-3-one	Ingestion	Not classified for male reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
2-Methyl-4-isothiazoline-3-one	Ingestion	Not classified for development	Rat	NOAEL 15 mg/kg/day	during organogenesis

## Target Organ(s)

# Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Isopropyl Alcohol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	

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Isopropyl Alcohol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Isopropyl Alcohol	Inhalation	auditory system	Not classified	Guinea pig	NOAEL 13.4 mg/l	24 hours
Isopropyl Alcohol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
ETHOXYLATED C9-11 ALCOHOLS	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
SODIUM LAURYL SULFATE	Inhalation	respiratory irritation	May cause respiratory irritation	similar health hazards	NOAEL Not available	
5-chloro-2-methyl-4- isothiazoline-3-one	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
2-Methyl-4-isothiazoline- 3-one	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

1 0 0						
Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Isopropyl Alcohol	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 12.3 mg/l	24 months
Isopropyl Alcohol	Inhalation	nervous system	Not classified	Rat	NOAEL 12 mg/l	13 weeks
Isopropyl Alcohol	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 400 mg/kg/day	12 weeks
ETHOXYLATED C9-11 ALCOHOLS	Dermal	kidney and/or bladder   hematopoietic system	Not classified	Rat	NOAEL 125 mg/kg/day	13 weeks

#### **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 labeling, 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: Not acutely toxic to aquatic life by GHS criteria.

#### **Chronic aquatic hazard:**

Not chronically toxic to aquatic life by GHS criteria.

No product test data available

Material	Cas #	Organism	Туре	Exposure	Test Endpoint	Test Result
ETHOXYLAT	68439-46-3	Fathead	Experimental	96 hours	LC50	8.5 mg/l
ED C9-11		Minnow	-			-

ALCOHOLS						
ETHOXYLAT	68439-46-3	Green algae	Experimental	72 hours	EC50	45 mg/l
ED C9-11			Liperment	/ <b>_</b> nouis	2000	
ALCOHOLS						
ETHOXYLAT	68439-46-3	Water flea	Experimental	48 hours	EC50	2.686 mg/l
ED C9-11			1			C
ALCOHOLS						
ETHOXYLAT	68439-46-3	Fathead	Experimental	30 days	NOEC	0.73 mg/l
ED C9-11		Minnow	1	5		C
ALCOHOLS						
ETHOXYLAT	68439-46-3	Green Algae	Experimental	72 hours	NOEC	1.2 mg/l
ED C9-11		_	-			_
ALCOHOLS						
Isopropyl	67-63-0	Bacteria	Experimental	16 hours	LOEC	1,050 mg/l
Alcohol						
Isopropyl	67-63-0	Crustacea	Experimental	24 hours	LC50	>10,000 mg/l
Alcohol						
Isopropyl	67-63-0	Green Algae	Experimental	72 hours	EC50	>1,000 mg/l
Alcohol		_	_			_
Isopropyl	67-63-0	Medaka	Experimental	96 hours	LC50	>100 mg/l
Alcohol						
Isopropyl	67-63-0	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
Alcohol						
Isopropyl	67-63-0	Green algae	Experimental	72 hours	NOEC	1,000 mg/l
Alcohol						
Isopropyl	67-63-0	Water flea	Experimental	21 days	NOEC	100 mg/l
Alcohol						
Non-Ionic	Trade Secret	Green algae	Experimental	72 hours	EC50	27.22 mg/l
Surfactants						
(NJTSRN						
04499600-						
6633)						
Non-Ionic	Trade Secret	Water flea	Experimental	48 hours	EC50	>100 mg/l
Surfactants						
(NJTSRN						
04499600-						
6633)						
Non-Ionic	Trade Secret	Zebra Fish	Experimental	96 hours	LC50	101 mg/l
Surfactants						
(NJTSRN						
04499600-						
6633)	T 1 0 /				NOTO	
Non-Ionic	Trade Secret	Water flea	Estimated	21 days	NOEC	2 mg/l
Surfactants						
(NJTSRN						
04499600-						
6633)	Trade Secret	Zahra Ei-1	Entimente 1	20 1	NOEC	1.8 m c /l
Non-Ionic	rade Secret	Zebra Fish	Estimated	28 days	NOEC	1.8 mg/l
Surfactants (NJTSRN						
04499600-						
6633)						
Non-Ionic	Trade Secret	Green algae	Experimental	72 hours	EC10	6.25 mg/l
Surfactants		Citchi aigae	Experimental	/2 110015		0.23 mg/1
(NJTSRN						
	1	1	1			

04499600-						
6633)						
SODIUM	151-21-3	Activated	Experimental	3 hours	EC50	135 mg/l
LAURYL		sludge	-			-
SULFATE						
SODIUM	151-21-3	Algae or other	Experimental	96 hours	EC50	30.2 mg/l
LAURYL	101 21 0	aquatic plants	Liperinental	50 110 415	1000	
SULFATE						
SODIUM	151-21-3	Atlantic	Experimental	96 hours	LC50	2.8 mg/l
LAURYL	151-21-5	Silverside	Experimental	50 110013	LC50	2.0 mg/1
SULFATE		Silverside				
SODIUM	151-21-3	Crustecea other	E-m anima antal	48 hours	LC50	1.9 mg/l
LAURYL	131-21-3	Crustecea other	Experimental	48 110015	LC30	1.9 mg/1
SULFATE	1.51.01.0	<b>T</b> ' 1 1	<b>D</b>	0.61	1.050	0.50 //
SODIUM	151-21-3	Fish other	Experimental	96 hours	LC50	0.59 mg/l
LAURYL						
SULFATE						
SODIUM	151-21-3	Green algae	Experimental	96 hours	EC50	117 mg/l
LAURYL						
SULFATE						
SODIUM	151-21-3	Water flea	Experimental	48 hours	LC50	1.4 mg/l
LAURYL			-			-
SULFATE						
SODIUM	151-21-3	Fathead	Experimental	42 days	NOEC	1.357 mg/l
LAURYL		Minnow	I · · · ···			
SULFATE						
SODIUM	151-21-3	Green Algae	Experimental	96 hours	EC10	12 mg/l
LAURYL	101 21 5	Green / ingue	Experimental	50 110 115	Lero	12 mg/1
SULFATE						
SODIUM	151-21-3	Water flea	Experimental	7 days	NOEC	0.88 mg/l
LAURYL	131-21-3	water nea	Experimental	/ uays	NOLC	0.88 mg/1
SULFATE						
5-chloro-2-	26172-55-4	Diatom	E-m anima antal	72 hours	EC50	0.007
	20172-33-4	Diatom	Experimental	72 nours	EC30	0.007 mg/l
methyl-4-						
isothiazoline-3-						
one			<b>D</b>	50.1		0.007 //
5-chloro-2-	26172-55-4	Green algae	Experimental	72 hours	EC50	0.027 mg/l
methyl-4-						
isothiazoline-3-						
one						
5-chloro-2-	26172-55-4	Mysid Shrimp	Experimental	96 hours	LC50	0.282 mg/l
methyl-4-						
isothiazoline-3-						
one						
5-chloro-2-	26172-55-4	Rainbow Trout	Experimental	96 hours	LC50	0.19 mg/l
methyl-4-			-			_
isothiazoline-3-						
one						
5-chloro-2-	26172-55-4	Sheepshead	Experimental	96 hours	LC50	0.3 mg/l
methyl-4-		Minnow	1			
isothiazoline-3-						
one						
5-chloro-2-	26172-55-4	Water flea	Experimental	48 hours	EC50	0.16 mg/l
methyl-4-	201,2-33-4		Experimental			0.10 116/1
isothiazoline-3-						
isounazonne-3-		1		1		

one		Ι				
5-chloro-2- methyl-4- isothiazoline-3- one	26172-55-4	Diatom	Experimental	48 hours	NOEC	0.00049 mg/l
5-chloro-2- methyl-4- isothiazoline-3- one	26172-55-4	Fathead Minnow	Experimental	36 days	NOEC	0.02 mg/l
5-chloro-2- methyl-4- isothiazoline-3- one	26172-55-4	Green algae	Experimental	72 hours	NOEC	0.004 mg/l
5-chloro-2- methyl-4- isothiazoline-3- one	26172-55-4	Water flea	Experimental	21 days	NOEC	0.0111 mg/l
2-Methyl-4- isothiazoline-3- one	2682-20-4	Activated sludge	Experimental	3 hours	EC50	41 mg/l
2-Methyl-4- isothiazoline-3- one	2682-20-4	Diatom	Experimental	72 hours	EC50	0.0199 mg/l
2-Methyl-4- isothiazoline-3- one	2682-20-4	Green algae	Experimental	72 hours	EC50	0.027 mg/l
2-Methyl-4- isothiazoline-3- one	2682-20-4	Mysid Shrimp	Experimental	96 hours	LC50	0.282 mg/l
2-Methyl-4- isothiazoline-3- one	2682-20-4	Rainbow Trout	Experimental	96 hours	LC50	0.19 mg/l
2-Methyl-4- isothiazoline-3- one	2682-20-4	Sheepshead Minnow	Experimental	96 hours	LC50	0.3 mg/l
2-Methyl-4- isothiazoline-3- one	2682-20-4	Water flea	Experimental	48 hours	EC50	0.16 mg/l
2-Methyl-4- isothiazoline-3- one	2682-20-4	Diatom	Experimental	48 hours	NOEC	0.00049 mg/l
2-Methyl-4- isothiazoline-3- one	2682-20-4	Fathead Minnow	Experimental	36 days	NOEC	0.02 mg/l
2-Methyl-4- isothiazoline-3- one	2682-20-4	Green algae	Experimental	72 hours	NOEC	0.004 mg/l
2-Methyl-4- isothiazoline-3- one	2682-20-4	Water flea	Experimental	21 days	NOEC	0.0111 mg/l

# 12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
ETHOXYLAT	68439-46-3	Experimental	28 days	Biological	88 % weight	OECD 301F -

ED C9-11 ALCOHOLS		Biodegradation		Oxygen Demand		Manometric Respiro
Isopropyl Alcohol	67-63-0	Experimental Biodegradation	14 days	Biological Oxygen Demand	86 % BOD/ThBOD	OECD 301C - MITI (I)
Non-Ionic Surfactants (NJTSRN 04499600- 6633)	Trade Secret	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	100 % weight	OECD 301E - Modif. OECD Screen
SODIUM LAURYL SULFATE	151-21-3	Experimental Biodegradation	28 days	Carbon dioxide evolution	95 % weight	OECD 301B - Mod. Sturm or CO2
5-chloro-2- methyl-4- isothiazoline-3- one	26172-55-4	Estimated Photolysis		Photolytic half- life (in air)	1.2 days (t 1/2)	Non-standard method
5-chloro-2- methyl-4- isothiazoline-3- one	26172-55-4	Experimental Hydrolysis		Hydrolytic half-life	>60 days (t 1/2)	Non-standard method
5-chloro-2- methyl-4- isothiazoline-3- one	26172-55-4	Experimental Biodegradation	29 days	Carbon dioxide evolution		OECD 301B - Mod. Sturm or CO2
2-Methyl-4- isothiazoline-3- one	2682-20-4	Estimated Photolysis		Photolytic half- life (in air)		Non-standard method
2-Methyl-4- isothiazoline-3- one	2682-20-4	Experimental Hydrolysis		Hydrolytic half-life	>60 days (t 1/2)	Non-standard method
2-Methyl-4- isothiazoline-3- one	2682-20-4	Experimental Biodegradation	29 days	Carbon dioxide evolution	62 %CO2 evolution/THC O2 evolution (does not pass 10-day window)	OECD 301B - Mod. Sturm or CO2

# 12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
ETHOXYLAT	68439-46-3	Estimated		Bioaccumulatio	31	Est: Bioconcentration
ED C9-11		Bioconcentrati		n Factor		factor
ALCOHOLS		on				
Isopropyl	67-63-0	Experimental		Log of	0.05	Non-standard method
Alcohol		Bioconcentrati		Octanol/H2O		
		on		part. coeff		
Non-Ionic	Trade Secret	Estimated		Log of	1.72	Non-standard method
Surfactants		Bioconcentrati		Octanol/H2O		
(NJTSRN		on		part. coeff		
04499600-						
6633)						
SODIUM	151-21-3	Experimental		Log of	≤-2.03	Non-standard method

LAURYL		Bioconcentrati		Octanol/H2O		
SULFATE		on		part. coeff		
5-chloro-2-	26172-55-4	Estimated BCF	42 days	Bioaccumulatio	54	OECD 305E-Bioaccum
methyl-4-		- Bluegill	-	n Factor		Fl-thru fis
isothiazoline-3-						
one						
2-Methyl-4-	2682-20-4	Estimated BCF	42 days	Bioaccumulatio	54	OECD 305E-Bioaccum
isothiazoline-3-		- Bluegill		n Factor		Fl-thru fis
one						

## 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

According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Please approach Kualiti Alam for proper schedule waste classification and disposal.

# **SECTION 14: Transport Information**

## Marine Transport (IMDG)

UN Number:None assigned. Proper Shipping Name:None assigned. Technical Name:None assigned. Hazard Class/Division:None assigned. Subsidiary Risk:None assigned. Packing Group:None assigned. Limited Quantity:None assigned. Marine Pollutant: None assigned. Marine Pollutant Technical Name: None assigned. Other Dangerous Goods Descriptions: None assigned.

Air Transport (IATA)

UN Number:None assigned. Proper Shipping Name:None assigned. Technical Name:None assigned. Hazard Class/Division:None assigned. Subsidiary Risk:None assigned. Packing Group:None assigned. Limited Quantity:None assigned. Marine Pollutant: None assigned. Marine Pollutant Technical Name: None assigned.

## **Other Dangerous Goods Descriptions:**

None assigned.

Transportation classifications are provided as a customer service. As for shipping, YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling or marking requirements. The above information is only for reference. If you are shipping by air or ocean, YOU are advised to check & meet applicable regulatory requirements.

# **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.

# **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 Malaysia SDSs are available at www.3M.com.my