



## 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™ PN 38050L Automotive Multi Cleaner

#### Product Identification Numbers

XI-0090-0030-2 XS-0020-0391-0

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

##### Recommended use

Automotive, Surface cleaner

#### 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 Petaling, Jaya, Selangor  
**Telephone:** 03-7884 2888  
**E Mail:** 3mmyehsr@mmm.com  
**Website:** 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

Skin Corrosion/Irritation: Category 2.

Serious Eye Damage/Irritation: Category 1.

Skin Sensitizer: Category 1.

Acute Aquatic Toxicity: Category 1.

Chronic Aquatic Toxicity: Category 1.

#### 2.2. Label elements

##### Signal word

Danger

##### Symbols

Corrosion | Exclamation mark | Environment |

**Pictograms****Hazard Statements:**

H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

**Precautionary statements****General:**

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

**Prevention:**

P273	Avoid release to the environment.
P280B	Wear protective gloves and eye/face protection.

**Response:**

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

**Disposal:**

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

None known

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

This material is a mixture.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>% by Wt</b>
WATER	7732-18-5	65 - 75
DIMETHYLAMINE	Trade Secret	10 - 20
2-BUTOXYETHANOL	111-76-2	1 - 10
LINEAR ALKYL BENZENE SULFONIC ACID	68584-22-5	5 - 10
ISOPROPYL ALCOHOL	67-63-0	1 - 5
SODIUM HYDROXIDE	1310-73-2	1 - 5
FRAGRANCE 1	Mixture	< 2
FRAGRANCE 2	55965-84-9	< 0.2

**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 for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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**

Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of vision).

#### **4.3. Indication of any immediate medical attention and special treatment required**

Not applicable

## **SECTION 5: Fire-fighting measures**

#### **5.1. Suitable extinguishing media**

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.

#### **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 dikes 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**

Avoid eye contact. Keep out of reach of children. Avoid breathing dust/fume/gas/mist/vapors/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. Keep away from reactive metals (eg. Aluminum, zinc etc.) to avoid the formation of hydrogen gas that could create an explosion hazard.

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

Store away from heat.

**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.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional Comments</b>
2-BUTOXYETHANOL	111-76-2	ACGIH	TWA:20 ppm	A3: Confirmed animal carcin.
2-BUTOXYETHANOL	111-76-2	Malaysia OELs	TWA(8 hours):96.7 mg/m3(20 ppm)	SKIN
SODIUM HYDROXIDE	1310-73-2	ACGIH	CEIL:2 mg/m3	
SODIUM HYDROXIDE	1310-73-2	Malaysia OELs	CEIL:2 mg/m3	
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**

No engineering controls required.

**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:

Full Face Shield

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

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.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Liquid
Color	Light Yellow
Odor	Characteristic Odor
Odor threshold	No Data Available
pH	8 - 9
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)	No Data Available
Flammable Limits(UEL)	No Data Available
Vapor Pressure	No Data Available
Vapor Density and/or Relative Vapor Density	No Data Available
Density	0.99 - 1.01 g/ml [ @ 25 °C ]
Relative Density	0.99 - 1.01 [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	No Data Available
Volatile Organic Compounds	No Data Available
Percent volatile	No Data Available
VOC Less H2O & Exempt Solvents	No Data Available

### Nanoparticles

This material does not contain nanoparticles.

## 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 polymerization will not occur.

**10.4. Conditions to avoid**

Heat

**10.5. Incompatible materials**

Reactive metals

**10.6. Hazardous decomposition products**

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified
Carbon dioxide	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 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:**

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:**

Corrosive (Eye Burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

**Ingestion:**

May be harmful if swallowed.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

**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	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE >12.5 mg/l

Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg
DIMETHYLAMINE	Dermal		LD50 estimated to be > 5,000 mg/kg
DIMETHYLAMINE	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
LINEAR ALKYL BENZENE SULFONIC ACID	Dermal	Rabbit	LD50 2,000 mg/kg
LINEAR ALKYL BENZENE SULFONIC ACID	Ingestion	Rat	LD50 775 mg/kg
2-BUTOXYETHANOL	Dermal	Guinea pig	LD50 > 2,000 mg/kg
2-BUTOXYETHANOL	Inhalation-Vapor (4 hours)	Guinea pig	LC50 > 2.6 mg/l
2-BUTOXYETHANOL	Ingestion	Guinea pig	LD50 1,200 mg/kg
ISOPROPYL ALCOHOL	Dermal	Rabbit	LD50 12,870 mg/kg
ISOPROPYL ALCOHOL	Inhalation-Vapor (4 hours)	Rat	LC50 72.6 mg/l
ISOPROPYL ALCOHOL	Ingestion	Rat	LD50 4,710 mg/kg
FRAGRANCE 2	Dermal	Rabbit	LD50 87 mg/kg
FRAGRANCE 2	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.33 mg/l
FRAGRANCE 2	Ingestion	Rat	LD50 40 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
2-BUTOXYETHANOL	Rabbit	Irritant
ISOPROPYL ALCOHOL	Multiple animal species	No significant irritation
SODIUM HYDROXIDE	Rabbit	Corrosive
FRAGRANCE 2	Rabbit	Corrosive

#### Serious Eye Damage/Irritation

Name	Species	Value
2-BUTOXYETHANOL	Rabbit	Severe irritant
ISOPROPYL ALCOHOL	Rabbit	Severe irritant
SODIUM HYDROXIDE	Rabbit	Corrosive
FRAGRANCE 2	Rabbit	Corrosive

#### Sensitization:

##### Skin Sensitization

Name	Species	Value
2-BUTOXYETHANOL	Guinea pig	Not classified
ISOPROPYL ALCOHOL	Guinea pig	Not classified
SODIUM HYDROXIDE	Human	Not classified
FRAGRANCE 2	Human and animal	Sensitizing

##### Photosensitization

Name	Species	Value
FRAGRANCE 2	Human and animal	Not sensitizing

**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
2-BUTOXYETHANOL	In Vitro	Some positive data exist, but the data are not sufficient for classification
ISOPROPYL ALCOHOL	In Vitro	Not mutagenic
ISOPROPYL ALCOHOL	In vivo	Not mutagenic
SODIUM HYDROXIDE	In Vitro	Not mutagenic
FRAGRANCE 2	In vivo	Not mutagenic
FRAGRANCE 2	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
2-BUTOXYETHANOL	Inhalation	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
ISOPROPYL ALCOHOL	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
FRAGRANCE 2	Dermal	Mouse	Not carcinogenic
FRAGRANCE 2	Ingestion	Rat	Not carcinogenic

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
2-BUTOXYETHANOL	Dermal	Not classified for development	Rat	NOAEL 1,760 mg/kg/day	during gestation
2-BUTOXYETHANOL	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	during organogenesis
2-BUTOXYETHANOL	Inhalation	Not classified for development	Multiple animal species	NOAEL 0.48 mg/l	during organogenesis
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
FRAGRANCE 2	Ingestion	Not classified for female reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
FRAGRANCE 2	Ingestion	Not classified for male reproduction	Rat	NOAEL 10 mg/kg/day	2 generation
FRAGRANCE 2	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
2-BUTOXYETHANOL	Dermal	endocrine system	Not classified	Rabbit	NOAEL 902 mg/kg	6 hours
2-BUTOXYETHANOL	Dermal	liver	Not classified	Rabbit	LOAEL 72 mg/kg	not available
2-BUTOXYETHANOL	Dermal	kidney and/or bladder	Not classified	Rabbit	LOAEL 451 mg/kg	6 hours
2-BUTOXYETHANOL	Dermal	blood	Not classified	Multiple animal	NOAEL Not available	



				species		
2-BUTOXYETHANOL	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
2-BUTOXYETHANOL	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
2-BUTOXYETHANOL	Inhalation	blood	Not classified	Multiple animal species	NOAEL Not available	
2-BUTOXYETHANOL	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
2-BUTOXYETHANOL	Ingestion	blood	Not classified	Multiple animal species	NOAEL Not available	
2-BUTOXYETHANOL	Ingestion	kidney and/or bladder	Not classified	Human	NOAEL Not available	poisoning and/or abuse
ISOPROPYL ALCOHOL	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
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
SODIUM HYDROXIDE	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	
FRAGRANCE 2	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
2-BUTOXYETHANOL	Dermal	blood	Not classified	Multiple animal species	NOAEL Not available	not available
2-BUTOXYETHANOL	Dermal	endocrine system	Not classified	Rabbit	NOAEL 150 mg/kg/day	90 days
2-BUTOXYETHANOL	Inhalation	liver	Not classified	Rat	NOAEL 2.4 mg/l	14 weeks
2-BUTOXYETHANOL	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.15 mg/l	14 weeks
2-BUTOXYETHANOL	Inhalation	blood	Not classified	Rat	LOAEL 0.15 mg/l	6 months
2-BUTOXYETHANOL	Inhalation	endocrine system	Not classified	Dog	LOAEL 1.9 mg/l	8 days
2-BUTOXYETHANOL	Ingestion	blood	Not classified	Rat	LOAEL 69 mg/kg/day	13 weeks
2-BUTOXYETHANOL	Ingestion	kidney and/or bladder	Not classified	Multiple animal species	NOAEL Not available	not available
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

**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:

GHS Acute 1: Very toxic to aquatic life.

#### Chronic aquatic hazard:

GHS Chronic 1: Very toxic to aquatic life with long lasting effects.

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
DIMETHYLA MINE	Trade Secret	Green algae	Estimated	72 hours	EC50	0.129 mg/l
DIMETHYLA MINE	Trade Secret	Medaka	Estimated	96 hours	LC50	29.9 mg/l
DIMETHYLA MINE	Trade Secret	Water flea	Estimated	48 hours	EC50	2.23 mg/l
DIMETHYLA MINE	Trade Secret	Green algae	Estimated	72 hours	NOEC	0.005 mg/l
DIMETHYLA MINE	Trade Secret	Water flea	Estimated	21 days	NOEC	0.36 mg/l
2- BUTOXYETH ANOL	111-76-2	Activated sludge	Experimental	16 hours	IC50	>1,000 mg/l
2- BUTOXYETH ANOL	111-76-2	Eastern oyster	Experimental	96 hours	LC50	89.4 mg/l
2- BUTOXYETH ANOL	111-76-2	Green Algae	Experimental	72 hours	EC50	1,840 mg/l
2- BUTOXYETH ANOL	111-76-2	Rainbow Trout	Experimental	96 hours	LC50	1,474 mg/l
2- BUTOXYETH ANOL	111-76-2	Water flea	Experimental	48 hours	EC50	1,550 mg/l
2- BUTOXYETH ANOL	111-76-2	Green Algae	Experimental	72 hours	EC10	679 mg/l
2- BUTOXYETH ANOL	111-76-2	Water flea	Experimental	21 days	NOEC	100 mg/l
LINEAR ALKYL BENZENE SULFONIC	68584-22-5	Green algae	Analogous Compound	96 hours	EC50	36 mg/l

ACID						
LINEAR ALKYL BENZENE SULFONIC ACID	68584-22-5	Rainbow Trout	Experimental	96 hours	LC50	4.3 mg/l
LINEAR ALKYL BENZENE SULFONIC ACID	68584-22-5	Water flea	Experimental	48 hours	EC50	2.9 mg/l
LINEAR ALKYL BENZENE SULFONIC ACID	68584-22-5	Fathead Minnow	Analogous Compound	28 days	NOEC	0.9 mg/l
LINEAR ALKYL BENZENE SULFONIC ACID	68584-22-5	Green algae	Analogous Compound	72 hours	NOEC	2.2 mg/l
LINEAR ALKYL BENZENE SULFONIC ACID	68584-22-5	Water flea	Analogous Compound	21 days	NOEC	0.3 mg/l
LINEAR ALKYL BENZENE SULFONIC ACID	68584-22-5	Activated sludge	Analogous Compound	3 hours	EC50	550 mg/l
LINEAR ALKYL BENZENE SULFONIC ACID	68584-22-5	Redworm	Analogous Compound	14 days	LC50	>1,000 mg/kg (Dry Weight)
ISOPROPYL ALCOHOL	67-63-0	Bacteria	Experimental	16 hours	LOEC	1,050 mg/l
ISOPROPYL ALCOHOL	67-63-0	Crustacea	Experimental	24 hours	LC50	>10,000 mg/l
ISOPROPYL ALCOHOL	67-63-0	Green Algae	Experimental	72 hours	EC50	>1,000 mg/l
ISOPROPYL ALCOHOL	67-63-0	Medaka	Experimental	96 hours	LC50	>100 mg/l
ISOPROPYL ALCOHOL	67-63-0	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
ISOPROPYL ALCOHOL	67-63-0	Green algae	Experimental	72 hours	NOEC	1,000 mg/l
ISOPROPYL ALCOHOL	67-63-0	Water flea	Experimental	21 days	NOEC	100 mg/l
SODIUM HYDROXIDE	1310-73-2		Data not available or insufficient for classification			N/A
FRAGRANCE	55965-84-9	Activated	Experimental	3 hours	NOEC	0.91 mg/l

2		sludge				
FRAGRANCE 2	55965-84-9	Bacteria	Experimental	16 hours	EC50	5.7 mg/l
FRAGRANCE 2	55965-84-9	Copepods	Experimental	48 hours	EC50	0.007 mg/l
FRAGRANCE 2	55965-84-9	Diatom	Experimental	72 hours	EC50	0.0199 mg/l
FRAGRANCE 2	55965-84-9	Green Algae	Experimental	72 hours	EC50	0.027 mg/l
FRAGRANCE 2	55965-84-9	Rainbow Trout	Experimental	96 hours	LC50	0.19 mg/l
FRAGRANCE 2	55965-84-9	Sheepshead Minnow	Experimental	96 hours	LC50	0.3 mg/l
FRAGRANCE 2	55965-84-9	Water flea	Experimental	48 hours	EC50	0.099 mg/l
FRAGRANCE 2	55965-84-9	Diatom	Experimental	48 hours	NOEC	0.00049 mg/l
FRAGRANCE 2	55965-84-9	Fathead Minnow	Experimental	36 days	NOEL	0.02 mg/l
FRAGRANCE 2	55965-84-9	Green Algae	Experimental	72 hours	NOEC	0.004 mg/l
FRAGRANCE 2	55965-84-9	Water flea	Experimental	21 days	NOEC	0.004 mg/l

## 12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
DIMETHYLA MINE	Trade Secret	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	97 % weight	OECD 301E - Modif. OECD Screen
2-BUTOXYETH ANOL	111-76-2	Experimental Biodegradation	28 days	Carbon dioxide evolution	90.4 % weight	OECD 301B - Mod. Sturm or CO2
LINEAR ALKYL BENZENE SULFONIC ACID	68584-22-5	Experimental Biodegradation	28 days	Carbon dioxide evolution	80 %CO2 evolution/THC O2 evolution	OECD 301B - Mod. Sturm or CO2
ISOPROPYL ALCOHOL	67-63-0	Experimental Biodegradation	14 days	Biological Oxygen Demand	86 % BOD/ThOD	OECD 301C - MITI (I)
SODIUM HYDROXIDE	1310-73-2	Data not availbl- insufficient	N/A	N/A	N/A	N/A
FRAGRANCE 2	55965-84-9	Estimated Photolysis		Photolytic half-life (in air)	1.2 days (t 1/2)	Non-standard method
FRAGRANCE 2	55965-84-9	Experimental Hydrolysis		Hydrolytic half-life	> 60 days (t 1/2)	Non-standard method
FRAGRANCE 2	55965-84-9	Estimated 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
DIMETHYLA MINE	Trade Secret	Estimated Bioconcentrati on		Bioaccumulatio n Factor	182	Est: Bioconcentration factor
2- BUTOXYETH ANOL	111-76-2	Experimental Bioconcentrati on		Log of Octanol/H2O part. coeff	0.81	Non-standard method
LINEAR ALKYL BENZENE SULFONIC ACID	68584-22-5	Analogous Compound BCF - Bluegill	28 days	Bioaccumulatio n Factor	220	
LINEAR ALKYL BENZENE SULFONIC ACID	68584-22-5	Experimental Bioconcentrati on		Log of Octanol/H2O part. coeff	2.0	OECD 107 log Kow shke flsk mtd
ISOPROPYL ALCOHOL	67-63-0	Experimental Bioconcentrati on		Log of Octanol/H2O part. coeff	0.05	Non-standard method
SODIUM HYDROXIDE	1310-73-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
FRAGRANCE 2	55965-84-9	Estimated BCF - Bluegill	28 days	Bioaccumulatio n Factor	54	OECD 305E-Bioaccum Fl-thru fis

**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**

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:**

Not restricted, as per IMDG code 2.10.2.7, marine pollutant exception.

#### **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:**

Not restricted, as per Special Provision A197, environmentally hazardous substance exception.

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.

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