



## Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Notification of Ministry of Industry, System of Hazardous Classification and Communication B.E.2555.

### SECTION 1: Identification

#### 1.1. Product identifier

3M Air Freshener Spray Fresh Marine

**Company:** 3M Thailand Ltd.

**Address:** 12th Floor, Serm-Mitr Tower 159 Asoke Road (Sukhumvit 21) Bangkok 10110 Thailand

#### Product Identification Numbers

XN-0020-3518-8

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

##### Recommended use

Air Freshener, Air Freshener

#### 1.3. Supplier's details

**ADDRESS:** 3M Thailand Limited, Sukhumvit 21, Wattana, Bangkok 10110, Thailand

**Telephone:** 66(0)22608577

**E Mail:** 3MThailand@mmm.com

**Website:** <http://www.3M.com/TH>

#### 1.4. Emergency telephone number

66-2-2608577

### SECTION 2: Hazard identification

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

Flammable Aerosol: Category 1.

Gas Under Pressure: Liquefied gas.

Serious Eye Damage/Irritation: Category 2B.

Specific Target Organ Toxicity (single exposure): Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.

Acute Aquatic Toxicity: Category 2.

#### 2.2. Label elements

**Signal word**

Danger

**Symbols**

Flame | Gas cylinder | Exclamation mark | Health Hazard |

**Pictograms**



**Hazard Statements**

H222	Extremely flammable aerosol.
H280	Contains gas under pressure; may explode if heated.
H320	Causes eye irritation.
H336	May cause drowsiness or dizziness.
H370	Causes damage to organs: cardiovascular system
H401	Toxic to aquatic life.

**Precautionary statements**

**General:**

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

**Prevention:**

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.

**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.
P307 + P311	IF exposed: Call a POISON CENTER or doctor/physician.

**Storage:**

P410 + P403	Protect from sunlight. Store in a well-ventilated place.
P412	Do not expose to temperatures exceeding 50 C/ 122 F.
P405	Store locked up.

**Disposal:**

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

Intentional misuse by deliberately concentrating and inhaling contents can be harmful or fatal.

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

This material is a mixture.

## 3M Air Freshener Spray Fresh Marine

Ingredient	C.A.S. No.	% by Wt
Ethyl Alcohol	64-17-5	40 - 70
LIQUEFIED PETROLEUM GAS	68476-85-7	15 - 40
Fragrance	Mixture	< 1

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation:

Remove person to fresh air. 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:

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

See Section 11.1. Information on toxicological effects.

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

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

## 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

Closed containers exposed to heat from fire may build pressure and explode.

### Hazardous Decomposition or By-Products

#### Substance

Carbon monoxide  
Carbon dioxide  
Irritant Vapors or Gases

#### Condition

During Combustion  
During Combustion  
During Combustion

### 5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or

## 3M Air Freshener Spray Fresh Marine

exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. 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

If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Contain spill. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. 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 using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe 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. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.)

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

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. Store away from acids. Store away from oxidizing agents.

## 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
Ethyl Alcohol	64-17-5	ACGIH	STEL:1000 ppm	A3: Confirmed animal carcin.
Ethyl Alcohol	64-17-5	Thailand OELs	TWA(8 hours):1900 mg/m3(1000 ppm)	
LIQUEFIED PETROLEUM GAS	68476-85-7	ACGIH	Limit value not established:	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

Thailand OELs : Thailand. Ministry of Interior, Re: Notification Health and Safety in the Work Environment on chemical B.E.2520

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

### 8.2. Exposure controls

### 8.2.1. Engineering controls

Do not remain in area where available oxygen may be reduced. 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/vapors/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:

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  
Half facepiece or full facepiece supplied-air respirator  
Organic vapor respirators may have short service life.

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
Specific Physical Form:	Aerosol
Appearance/Odor	Characteristic odor, colorless to yellow
Odor threshold	No Data Available
pH	Not Applicable
Melting point/Freezing point	No Data Available
Boiling point/Initial boiling point/Boiling range	78.3 °C [Test Method: Estimated] [Details: Estimated based on CAS# 64-17-5]
Flash Point	13 °C [Test Method: Closed Cup] [Details: Estimated based on CAS# 64-17-5]
Evaporation rate	No Data Available
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	4.3 % volume [Details: Estimated based on CAS# 64-17-5]
Flammable Limits(UEL)	19 % volume [Details: Estimated based on CAS# 64-17-5]

<b>Vapor Pressure</b>	5,866.2 Pa [ @ 20 °C ] [Details: Estimated based on CAS# 64-17-5]
<b>Vapor Density</b>	No Data Available
<b>Density</b>	0.8 - 0.82 g/ml
<b>Relative Density</b>	0.8 - 0.82 [Ref Std: WATER=1]
<b>Water solubility</b>	No Data Available
<b>Solubility- non-water</b>	No Data Available
<b>Partition coefficient: n-octanol/ water</b>	No Data Available
<b>Autoignition temperature</b>	No Data Available
<b>Decomposition temperature</b>	No Data Available
<b>Viscosity</b>	No Data Available
<b>Molecular weight</b>	Not Applicable

## 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

None known.

### 10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
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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 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:

Intentional concentration and inhalation may be harmful or fatal.

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Simple Asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

#### Skin Contact:

Contact with the skin during product use is not expected to result in significant irritation. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

#### Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

#### Ingestion:

May cause additional health effects (see below).

#### Additional Health Effects:

##### Single exposure may cause target organ effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

#### Additional Information:

This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified by the International Agency for Research on Cancer as carcinogenic to humans. There are also data associating human consumption of alcoholic beverages with developmental toxicity and liver toxicity. Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer, developmental toxicity, or liver toxicity.

#### 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-Vapor(4 hr)		No data available; calculated ATE > 50 mg/l
Overall product	Ingestion		No data available; calculated ATE > 5,000 mg/kg
Ethyl Alcohol	Dermal	Rabbit	LD50 > 15,800 mg/kg
Ethyl Alcohol	Inhalation-Vapor (4 hours)	Rat	LC50 124.7 mg/l
Ethyl Alcohol	Ingestion	Rat	LD50 17,800 mg/kg
LIQUEFIED PETROLEUM GAS	Inhalation-Gas (4 hours)	Rat	LC50 227,000 ppm

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Ethyl Alcohol	Rabbit	No significant irritation
LIQUEFIED PETROLEUM GAS	Professio	No significant irritation

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**Serious Eye Damage/Irritation**

Name	Species	Value
Ethyl Alcohol	Rabbit	Moderate irritant
LIQUEFIED PETROLEUM GAS	Professio nal judgemen t	No significant irritation

**Skin Sensitization**

Name	Species	Value
Ethyl Alcohol	Human	Some positive data exist, but the data are not sufficient for classification

**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
Ethyl Alcohol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Ethyl Alcohol	In vivo	Some positive data exist, but the data are not sufficient for classification
LIQUEFIED PETROLEUM GAS	In Vitro	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Ethyl Alcohol	Ingestion	Multiple animal species	Some positive data exist, but the data are not sufficient for classification

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

Name	Route	Value	Species	Test Result	Exposure Duration
Ethyl Alcohol	Inhalation	Not toxic to development	Rat	NOAEL 38 mg/l	during gestation
Ethyl Alcohol	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 5,200 mg/kg/day	prematuring & during gestation

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Ethyl Alcohol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	LOAEL 2.6 mg/l	30 minutes
Ethyl Alcohol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	LOAEL 9.4 mg/l	not available
Ethyl Alcohol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL not available	
Ethyl Alcohol	Ingestion	kidney and/or	Some positive data exist, but the	Dog	NOAEL	



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		bladder	data are not sufficient for classification		3,000 mg/kg	
LIQUEFIED PETROLEUM GAS	Inhalation	cardiac sensitization	Causes damage to organs	similar compounds	NOAEL Not available	
LIQUEFIED PETROLEUM GAS	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
LIQUEFIED PETROLEUM GAS	Inhalation	respiratory irritation	All data are negative		NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Ethyl Alcohol	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rabbit	LOAEL 124 mg/l	365 days
Ethyl Alcohol	Inhalation	hematopoietic system   immune system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 25 mg/l	14 days
Ethyl Alcohol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 8,000 mg/kg/day	4 months
Ethyl Alcohol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 3,000 mg/kg/day	7 days
LIQUEFIED PETROLEUM GAS	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	

**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 2: Toxic to aquatic life.

**Chronic aquatic hazard:**

Not chronically toxic to aquatic life by GHS criteria.

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Ethyl Alcohol	64-17-5	Water flea	Experimental	11 days	No obs Effect Conc	9.6 mg/l
Ethyl Alcohol	64-17-5	Green algae	Experimental	96 hours	Effect Concentration 50%	1,000 mg/l
Ethyl Alcohol	64-17-5	Water flea	Experimental	48 hours	Effect	9,300 mg/l

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					Concentration 50%	
Ethyl Alcohol	64-17-5	Rainbow Trout	Experimental	96 hours	Lethal Concentration 50%	42 mg/l
LIQUEFIED PETROLEUM GAS	68476-85-7		Data not available or insufficient for classification			

**12.2. Persistence and degradability**

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Ethyl Alcohol	64-17-5	Experimental Biodegradation	14 days	Biological Oxygen Demand	89 % weight	OECD 301C - MITI (I)
LIQUEFIED PETROLEUM GAS	68476-85-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

**12.3. Bioaccumulative potential**

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Ethyl Alcohol	64-17-5	Experimental Bioconcentration		Log of Octanol/H <sub>2</sub> O part. coeff	-0.31	Other methods
LIQUEFIED PETROLEUM GAS	68476-85-7	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**

Material	CAS No.	Ozone Depletion Potential	Global Warming Potential
ethyl alcohol	64-17-5	0	

**SECTION 13: Disposal considerations****13.1. Disposal methods**

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

Incinerate in a permitted waste incineration facility. Facility must be capable of handling aerosol cans. As a disposal alternative, utilize an acceptable permitted waste disposal 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**

## 3M Air Freshener Spray Fresh Marine

**UN No.:** UN1950

**UN Proper Shipping Name:** AEROSOLS, FLAMMABLE

**Transport hazard class (IMO):** Flammable gases

**Transport hazard class (IATA):** Flammable gases

**Packing Group:** Not applicable

**Environmental Hazards:**

Not applicable

**Special precautions for user**

Not applicable.

## 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 Thailand SDSs are available at <http://www.3M.com/TH>**