



## Safety Data Sheet

Copyright, 2023, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

<b>Document Group:</b>	37-0746-0	<b>Version Number:</b>	4.00
<b>Issue Date:</b>	31/07/2023	<b>Supersedes Date:</b>	12/08/2021

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

Scotch® Spray Mount™ Adhesive, 6065

#### Product Identification Numbers

70-0068-4535-1      70-0068-4542-7      70-0068-4613-6

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

##### Recommended use

Adhesive aerosol

For Industrial or Consumer Use

#### 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

Flammable Aerosol: Category 1.

Gas Under Pressure: Dissolved gas.

Serious Eye Damage/Irritation: Category 2.

Skin Sensitizer: Category 1.

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

#### 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.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H370	Causes damage to organs: cardiovascular system.

## Precautionary statements

### General:

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

### Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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.
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.
P307 + P311	IF exposed: Call a POISON CENTER or doctor/physician.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

### Storage:

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

### Disposal:

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

## 2.3. Other hazards

Aspiration classification does not apply as this product is sold in sealed, self-pressurized containers with nozzles designed to prevent formation of a stream during usage., May cause drowsiness or dizziness., May displace oxygen and cause rapid suffocation.

## SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
ACETONE	67-64-1	35 - 50
NON-VOLATILE INGREDIENTS	Trade Secret	10 - 25
1,1-DIFLUOROETHANE	75-37-6	10 - 18
CYCLOHEXANE	110-82-7	5 - 15
ISOBUTANE	75-28-5	5 - 15
PROPANE	74-98-6	2 - 10
POLYMER	Trade Secret	1 - 5
Methyl Alcohol	67-56-1	< 0.5
TOLUENE	108-88-3	< 0.3
METHYLENE CHLORIDE	75-09-2	< 0.008

## 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:

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

Allergic skin reaction (redness, swelling, blistering, and itching). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects. See Section 11 for additional details.

### 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

#### Condition

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 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**

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. 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 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. Do not handle until all safety precautions have been read and understood. 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. Wash contaminated clothing before reuse. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) as required.

**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 50°C/122°F. 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.

<b>Ingredient</b>	<b>C.A.S. No.</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional Comments</b>
TOLUENE	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human carcin, Ototoxicant
TOLUENE	108-88-3	Malaysia OELs	TWA(8 hours):188 mg/m3(50 ppm)	SKIN
CYCLOHEXANE	110-82-7	ACGIH	TWA:100 ppm	
CYCLOHEXANE	110-82-7	Malaysia OELs	TWA(8 hours):1030 mg/m3(300 ppm)	
Methyl Alcohol	67-56-1	ACGIH	TWA:200 ppm;STEL:250 ppm	Danger of cutaneous absorption
Methyl Alcohol	67-56-1	Malaysia OELs	TWA(8 hours):262	SKIN

			mg/m3(200 ppm)	
ACETONE	67-64-1	ACGIH	TWA:250 ppm;STEL:500 ppm	A4: Not class. as human carcin
ACETONE	67-64-1	Malaysia OELs	TWA(8 hours):1187 mg/m3(500 ppm)	
PROPANE	74-98-6	ACGIH	Limit value not established:	simple asphyxiant
PROPANE	74-98-6	Malaysia OELs	TWA(8 hours):2500 ppm	
METHYLENE CHLORIDE	75-09-2	ACGIH	TWA:50 ppm	A3: Confirmed animal carcin.
METHYLENE CHLORIDE	75-09-2	Malaysia OELs	TWA(8 hours):50 ppm	
ISOBUTANE	75-28-5	ACGIH	STEL:1000 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

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 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
Color	Light Yellow
Odor	Solvent
Odor threshold	No Data Available
pH	Not Applicable
Melting point/Freezing point	No Data Available
Boiling point/Initial boiling point/Boiling range	Not Applicable
Flash Point	-42.2 °C [Test Method: Closed Cup]
Evaporation rate	No Data Available
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	1.3 % volume
Flammable Limits(UEL)	12.8 % volume
Vapor Pressure	≤ 551,553.1 Pa [ @ 20 °C ]
Vapor Density and/or Relative Vapor Density	No Data Available
Density	0.8 g/ml
Relative Density	0.8 [Ref Std: WATER=1]
Water solubility	Negligible
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	≤ 100 mPa-s [ @ 23 °C ]
Volatile Organic Compounds	No Data Available
Percent volatile	No Data Available
VOC Less H2O & Exempt Solvents	≤ 28 %

## 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

Sparks and/or flames

Heat

### 10.5. Incompatible materials

Strong oxidizing agents

### 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:

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:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

May cause additional health effects (see below).

##### 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 diarrhea.

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.

Single exposure, above recommended guidelines, may cause: Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

##### Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

#### 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
ACETONE	Dermal	Rabbit	LD50 > 15,688 mg/kg
ACETONE	Inhalation-Vapor (4 hours)	Rat	LC50 76 mg/l
ACETONE	Ingestion	Rat	LD50 5,800 mg/kg
ISOBUTANE	Inhalation-Gas (4 hours)	Rat	LC50 276,000 ppm
1,1-DIFLUOROETHANE	Inhalation-Gas (4 hours)	Rat	LC50 > 437,000 ppm
CYCLOHEXANE	Dermal	Rat	LD50 > 2,000 mg/kg
CYCLOHEXANE	Inhalation-Vapor (4 hours)	Rat	LC50 > 32.9 mg/l
CYCLOHEXANE	Ingestion	Rat	LD50 6,200 mg/kg
PROPANE	Inhalation-Gas (4 hours)	Rat	LC50 > 200,000 ppm
POLYMER	Dermal	Rat	LD50 > 2,000 mg/kg
POLYMER	Ingestion	Rat	LD50 > 2,000 mg/kg
Methyl Alcohol	Dermal		LD50 estimated to be 1,000 - 2,000 mg/kg
Methyl Alcohol	Inhalation-Vapor		LC50 estimated to be 10 - 20 mg/l
Methyl Alcohol	Ingestion		LD50 estimated to be 50 - 300 mg/kg
TOLUENE	Dermal	Rat	LD50 12,000 mg/kg
TOLUENE	Inhalation-Vapor (4 hours)	Rat	LC50 30 mg/l
TOLUENE	Ingestion	Rat	LD50 5,550 mg/kg
METHYLENE CHLORIDE	Dermal	Rat	LD50 > 2,000 mg/kg
METHYLENE CHLORIDE	Inhalation-Vapor (4 hours)	Rat	LC50 63.7 mg/l
METHYLENE CHLORIDE	Ingestion	Rat	LD50 1,410 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
ACETONE	Mouse	Minimal irritation
ISOBUTANE	Professional judgement	No significant irritation
CYCLOHEXANE	Rabbit	Mild irritant
PROPANE	Rabbit	Minimal irritation
POLYMER	Rabbit	No significant irritation
Methyl Alcohol	Rabbit	Mild irritant
TOLUENE	Rabbit	Irritant
METHYLENE CHLORIDE	Rabbit	Irritant

**Serious Eye Damage/Irritation**

Name	Species	Value
ACETONE	Rabbit	Severe irritant



ISOBUTANE	Professional judgement	No significant irritation
CYCLOHEXANE	Rabbit	Mild irritant
PROPANE	Rabbit	Mild irritant
POLYMER	Rabbit	Moderate irritant
Methyl Alcohol	Rabbit	Moderate irritant
TOLUENE	Rabbit	Moderate irritant
METHYLENE CHLORIDE	Rabbit	Severe irritant

#### Sensitization:

#### Skin Sensitization

Name	Species	Value
POLYMER	Mouse	Sensitizing
Methyl Alcohol	Guinea pig	Not classified
TOLUENE	Guinea pig	Not classified

#### 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
ACETONE	In vivo	Not mutagenic
ACETONE	In Vitro	Some positive data exist, but the data are not sufficient for classification
ISOBUTANE	In Vitro	Not mutagenic
1,1-DIFLUOROETHANE	In Vitro	Some positive data exist, but the data are not sufficient for classification
1,1-DIFLUOROETHANE	In vivo	Some positive data exist, but the data are not sufficient for classification
CYCLOHEXANE	In Vitro	Not mutagenic
CYCLOHEXANE	In vivo	Some positive data exist, but the data are not sufficient for classification
PROPANE	In Vitro	Not mutagenic
POLYMER	In Vitro	Not mutagenic
Methyl Alcohol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Methyl Alcohol	In vivo	Some positive data exist, but the data are not sufficient for classification
TOLUENE	In Vitro	Not mutagenic
TOLUENE	In vivo	Not mutagenic
METHYLENE CHLORIDE	In vivo	Not mutagenic
METHYLENE CHLORIDE	In Vitro	Some positive data exist, but the data are not sufficient for classification

#### Carcinogenicity

Name	Route	Species	Value
ACETONE	Not Specified	Multiple animal species	Not carcinogenic
1,1-DIFLUOROETHANE	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Methyl Alcohol	Inhalation	Multiple animal species	Not carcinogenic
TOLUENE	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification

TOLUENE	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
TOLUENE	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
METHYLENE CHLORIDE	Inhalation	Multiple animal species	Carcinogenic

## Reproductive Toxicity

### Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
ACETONE	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,700 mg/kg/day	13 weeks
ACETONE	Inhalation	Not classified for development	Rat	NOAEL 5.2 mg/l	during organogenesis
1,1-DIFLUOROETHANE	Inhalation	Not classified for development	Rat	NOAEL 50,000 ppm	during organogenesis
CYCLOHEXANE	Inhalation	Not classified for female reproduction	Rat	NOAEL 24 mg/l	2 generation
CYCLOHEXANE	Inhalation	Not classified for male reproduction	Rat	NOAEL 24 mg/l	2 generation
CYCLOHEXANE	Inhalation	Not classified for development	Rat	NOAEL 6.9 mg/l	2 generation
POLYMER	Ingestion	Not classified for female reproduction	Rat	NOAEL 15,000 ppm in the diet	premating into lactation
POLYMER	Ingestion	Not classified for male reproduction	Rat	NOAEL 3,000 ppm in the diet	42 days
POLYMER	Ingestion	Not classified for development	Rat	NOAEL 622 mg/kg/day	during gestation
Methyl Alcohol	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,600 mg/kg/day	21 days
Methyl Alcohol	Ingestion	Toxic to development	Mouse	LOAEL 4,000 mg/kg/day	during organogenesis
Methyl Alcohol	Inhalation	Toxic to development	Mouse	NOAEL 1.3 mg/l	during organogenesis
TOLUENE	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
TOLUENE	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
TOLUENE	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
TOLUENE	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse
METHYLENE CHLORIDE	Inhalation	Not classified for female reproduction	Rat	NOAEL 5.2 mg/l	2 generation
METHYLENE CHLORIDE	Inhalation	Not classified for male reproduction	Rat	NOAEL 5.2 mg/l	2 generation
METHYLENE CHLORIDE	Inhalation	Not classified for development	Multiple animal species	NOAEL 4.3 mg/l	during gestation

## Target Organ(s)

### Specific Target Organ Toxicity - single exposure

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

ACETONE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
ACETONE	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 hours
ACETONE	Inhalation	liver	Not classified	Guinea pig	NOAEL Not available	
ACETONE	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
ISOBUTANE	Inhalation	cardiac sensitization	Causes damage to organs	Multiple animal species	NOAEL Not available	
ISOBUTANE	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
ISOBUTANE	Inhalation	respiratory irritation	Not classified	Mouse	NOAEL Not available	
1,1-DIFLUOROETHANE	Inhalation	cardiac sensitization	Causes damage to organs	Human and animal	NOAEL Not available	poisoning and/or abuse
1,1-DIFLUOROETHANE	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL 100,000 ppm	
1,1-DIFLUOROETHANE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
CYCLOHEXANE	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
CYCLOHEXANE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
CYCLOHEXANE	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
PROPANE	Inhalation	cardiac sensitization	Causes damage to organs	Human	NOAEL Not available	
PROPANE	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
PROPANE	Inhalation	respiratory irritation	Not classified	Human	NOAEL Not available	
POLYMER	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	
Methyl Alcohol	Inhalation	blindness	Causes damage to organs	Human	NOAEL Not available	occupational exposure
Methyl Alcohol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
Methyl Alcohol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 hours
Methyl Alcohol	Ingestion	blindness	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
Methyl Alcohol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
TOLUENE	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
TOLUENE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
TOLUENE	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
TOLUENE	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
METHYLENE CHLORIDE	Dermal	blood	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	4 hours

METHYLENE CHLORIDE	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	occupational exposure
METHYLENE CHLORIDE	Inhalation	blood	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
METHYLENE CHLORIDE	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
ACETONE	Dermal	eyes	Not classified	Guinea pig	NOAEL Not available	3 weeks
ACETONE	Inhalation	hematopoietic system	Not classified	Human	NOAEL 3 mg/l	6 weeks
ACETONE	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 days
ACETONE	Inhalation	kidney and/or bladder	Not classified	Guinea pig	NOAEL 119 mg/l	not available
ACETONE	Inhalation	heart   liver	Not classified	Rat	NOAEL 45 mg/l	8 weeks
ACETONE	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 900 mg/kg/day	13 weeks
ACETONE	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
ACETONE	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 200 mg/kg/day	13 weeks
ACETONE	Ingestion	liver	Not classified	Mouse	NOAEL 3,896 mg/kg/day	14 days
ACETONE	Ingestion	eyes	Not classified	Rat	NOAEL 3,400 mg/kg/day	13 weeks
ACETONE	Ingestion	respiratory system	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
ACETONE	Ingestion	muscles	Not classified	Rat	NOAEL 2,500 mg/kg	13 weeks
ACETONE	Ingestion	skin   bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
ISOBUTANE	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 4,500 ppm	13 weeks
1,1-DIFLUOROETHANE	Inhalation	hematopoietic system   kidney and/or bladder   respiratory system	Not classified	Rat	NOAEL 25,000 ppm	2 years
CYCLOHEXANE	Inhalation	liver	Not classified	Rat	NOAEL 24 mg/l	90 days
CYCLOHEXANE	Inhalation	auditory system	Not classified	Rat	NOAEL 1.7 mg/l	90 days
CYCLOHEXANE	Inhalation	kidney and/or bladder	Not classified	Rabbit	NOAEL 2.7 mg/l	10 weeks
CYCLOHEXANE	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 24 mg/l	14 weeks
CYCLOHEXANE	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 8.6 mg/l	30 weeks
POLYMER	Ingestion	heart   hematopoietic system   liver   nervous system   eyes   kidney and/or bladder   respiratory system	Not classified	Rat	NOAEL 1,296 mg/kg/day	90 days
Methyl Alcohol	Inhalation	liver	Not classified	Rat	NOAEL 6.55	4 weeks

					mg/l	
Methyl Alcohol	Inhalation	respiratory system	Not classified	Rat	NOAEL 13.1 mg/l	6 weeks
Methyl Alcohol	Ingestion	liver   nervous system	Not classified	Rat	NOAEL 2,500 mg/kg/day	90 days
TOLUENE	Inhalation	auditory system   eyes   olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
TOLUENE	Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
TOLUENE	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
TOLUENE	Inhalation	heart   liver   kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
TOLUENE	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
TOLUENE	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
TOLUENE	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
TOLUENE	Inhalation	hematopoietic system   vascular system	Not classified	Human	NOAEL Not available	occupational exposure
TOLUENE	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
TOLUENE	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
TOLUENE	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
TOLUENE	Ingestion	liver   kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
TOLUENE	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
TOLUENE	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
TOLUENE	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks
METHYLENE CHLORIDE	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 6.95 mg/l	2 years
METHYLENE CHLORIDE	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.17 mg/l	2 years
METHYLENE CHLORIDE	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	LOAEL 35 mg/l	8 weeks
METHYLENE CHLORIDE	Inhalation	heart	Not classified	Human	NOAEL Not available	
METHYLENE CHLORIDE	Inhalation	immune system	Not classified	Rat	NOAEL 18 mg/l	28 days
METHYLENE CHLORIDE	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1,200 mg/kg/day	3 months
METHYLENE CHLORIDE	Ingestion	blood	Not classified	Rat	NOAEL 249 mg/kg/day	2 years
METHYLENE CHLORIDE	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,469 mg/kg/day	3 months
METHYLENE CHLORIDE	Ingestion	eyes	Not classified	Rat	NOAEL 249 mg/kg/day	104 weeks

**Aspiration Hazard**

Name	Value
CYCLOHEXANE	Aspiration hazard
TOLUENE	Aspiration hazard

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
ACETONE	67-64-1	Algae or other aquatic plants	Experimental	96 hours	EC50	11,493 mg/l
ACETONE	67-64-1	Invertebrate	Experimental	24 hours	LC50	2,100 mg/l
ACETONE	67-64-1	Rainbow Trout	Experimental	96 hours	LC50	5,540 mg/l
ACETONE	67-64-1	Water flea	Experimental	21 days	NOEC	1,000 mg/l
ACETONE	67-64-1	Bacteria	Experimental	16 hours	NOEC	1,700 mg/l
ACETONE	67-64-1	Redworm	Experimental	48 hours	LC50	>100
NON-VOLATILE INGREDIENTS	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
1,1-DIFLUOROETHANE	75-37-6	Bacteria	Analogous Compound	6 hours	EC50	>472.57 mg/l
1,1-DIFLUOROETHANE	75-37-6	Rainbow Trout	Analogous Compound	96 hours	LC50	291.31 mg/l
1,1-DIFLUOROETHANE	75-37-6	Water flea	Analogous Compound	48 hours	EC50	634.41 mg/l
CYCLOHEXANE	110-82-7	Bacteria	Experimental	24 hours	IC50	97 mg/l
CYCLOHEXANE	110-82-7	Fathead Minnow	Experimental	96 hours	LC50	4.53 mg/l
CYCLOHEXANE	110-82-7	Water flea	Experimental	48 hours	EC50	0.9 mg/l
ISOBUTANE	75-28-5	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
PROPANE	74-98-6	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
POLYMER	Trade Secret	Zebra Fish	Analogous Compound	96 hours	LC50	>400 mg/l
POLYMER	Trade Secret	Green algae	Experimental	72 hours	EL50	>100 mg/l
POLYMER	Trade Secret	Water flea	Experimental	48 hours	EL50	>100 mg/l
POLYMER	Trade Secret	Green algae	Experimental	72 hours	NOEL	100 mg/l

Methyl Alcohol	67-56-1	Algae or other aquatic plants	Experimental	96 hours	EC50	16.9 mg/l
Methyl Alcohol	67-56-1	Bay mussel	Experimental	96 hours	LC50	15,900 mg/l
Methyl Alcohol	67-56-1	Bluegill	Experimental	96 hours	LC50	15,400 mg/l
Methyl Alcohol	67-56-1	Green algae	Experimental	96 hours	ErC50	22,000 mg/l
Methyl Alcohol	67-56-1	Sediment organism	Experimental	96 hours	LC50	54,890 mg/l
Methyl Alcohol	67-56-1	Water flea	Experimental	48 hours	LC50	3,289 mg/l
Methyl Alcohol	67-56-1	Green algae	Experimental	96 hours	NOEC	9.96 mg/l
Methyl Alcohol	67-56-1	Medaka	Experimental	8.33 days	NOEC	158,000 mg/l
Methyl Alcohol	67-56-1	Water flea	Experimental	21 days	NOEC	122 mg/l
Methyl Alcohol	67-56-1	Activated sludge	Experimental	3 hours	IC50	>1,000 mg/l
Methyl Alcohol	67-56-1	Barley	Experimental	14 days	EC50	15,492 mg/kg (Dry Weight)
Methyl Alcohol	67-56-1	Redworm	Experimental	63 days	EC50	26,646 mg/kg (Dry Weight)
Methyl Alcohol	67-56-1	Springtail	Experimental	28 days	EC50	5,683 mg/kg (Dry Weight)
TOLUENE	108-88-3	Coho Salmon	Experimental	96 hours	LC50	5.5 mg/l
TOLUENE	108-88-3	Grass Shrimp	Experimental	96 hours	LC50	9.5 mg/l
TOLUENE	108-88-3	Green algae	Experimental	72 hours	EC50	12.5 mg/l
TOLUENE	108-88-3	Leopard frog	Experimental	9 days	LC50	0.39 mg/l
TOLUENE	108-88-3	Pink Salmon	Experimental	96 hours	LC50	6.41 mg/l
TOLUENE	108-88-3	Water flea	Experimental	48 hours	EC50	3.78 mg/l
TOLUENE	108-88-3	Coho Salmon	Experimental	40 days	NOEC	1.39 mg/l
TOLUENE	108-88-3	Diatom	Experimental	72 hours	NOEC	10 mg/l
TOLUENE	108-88-3	Water flea	Experimental	7 days	NOEC	0.74 mg/l
TOLUENE	108-88-3	Activated sludge	Experimental	12 hours	IC50	292 mg/l
TOLUENE	108-88-3	Bacteria	Experimental	16 hours	NOEC	29 mg/l
TOLUENE	108-88-3	Bacteria	Experimental	24 hours	EC50	84 mg/l
TOLUENE	108-88-3	Redworm	Experimental	28 days	LC50	>150 mg per kg of bodyweight
TOLUENE	108-88-3	Soil microbes	Experimental	28 days	NOEC	<26 mg/kg (Dry Weight)
METHYLENE CHLORIDE	75-09-2	Fathead Minnow	Experimental	96 hours	LC50	193 mg/l
METHYLENE CHLORIDE	75-09-2	Green algae	Experimental	72 hours	EC50	242 mg/l
METHYLENE CHLORIDE	75-09-2	Water flea	Experimental	48 hours	LC50	27 mg/l
METHYLENE CHLORIDE	75-09-2	Fathead Minnow	Experimental	28 days	NOEC	83 mg/l
METHYLENE CHLORIDE	75-09-2	Green algae	Experimental	72 hours	EC10	115 mg/l
METHYLENE CHLORIDE	75-09-2	Activated sludge	Experimental	40 minutes	EC50	2,590 mg/l

## 12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
ACETONE	67-64-1	Experimental Biodegradation	28 days	Biological Oxygen Demand	78 %BOD/ThOD	OECD 301D - Closed Bottle Test
ACETONE	67-64-1	Experimental Photolysis		Photolytic half-life (in air)	147 days (t 1/2)	
NON-VOLATILE INGREDIENTS	Trade Secret	Data not available - insufficient	N/A	N/A	N/A	N/A
1,1-DIFLUOROETHANE	75-37-6	Analogous Compound Biodegradation	28 days	Biological Oxygen Demand	3 %BOD/ThOD	OECD 301D - Closed Bottle Test
1,1-DIFLUOROETHANE	75-37-6	Modeled Photolysis		Photolytic half-life (in air)	916 days (t 1/2)	Episuite™
CYCLOHEXANE	110-82-7	Experimental Biodegradation	28 days	Biological Oxygen Demand	77 %BOD/ThOD	OECD 301F - Manometric Respiro
CYCLOHEXANE	110-82-7	Experimental Photolysis		Photolytic half-life (in air)	4.1 days (t 1/2)	

ISOBUTANE	75-28-5	Experimental Photolysis		Photolytic half-life (in air)	13.4 days (t 1/2)	
PROPANE	74-98-6	Experimental Photolysis		Photolytic half-life (in air)	27.5 days (t 1/2)	
POLYMER	Trade Secret	Analogous Compound Biodegradation	28 days	Carbon dioxide evolution	5 %CO2 evolution/THCO2 evolution	OECD 301B - Mod. Sturm or CO2
Methyl Alcohol	67-56-1	Experimental Biodegradation	3 days	Percent degraded	91 %degraded	
Methyl Alcohol	67-56-1	Experimental Biodegradation	14 days	Biological Oxygen Demand	92 %BOD/ThOD	OECD 301C - MITI (I)
Methyl Alcohol	67-56-1	Experimental Photolysis		Photolytic half-life (in air)	35 days (t 1/2)	
Methyl Alcohol	67-56-1	Experimental Soil Metabolism Aerobic	5 days	Carbon dioxide evolution	53.4 %CO2 evolution/THCO2 evolution	
TOLUENE	108-88-3	Experimental Biodegradation	20 days	Biological Oxygen Demand	80 %BOD/ThOD	APHA Std Meth Water/Wastewater
TOLUENE	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.2 days (t 1/2)	
METHYLENE CHLORIDE	75-09-2	Experimental Biodegradation	28 days	Biological Oxygen Demand	68 %BOD/ThOD	OECD 301D - Closed Bottle Test
METHYLENE CHLORIDE	75-09-2	Experimental Photolysis		Photolytic half-life (in air)	226 days (t 1/2)	

### 12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
ACETONE	67-64-1	Experimental BCF - Other		Bioaccumulation Factor	0.65	
ACETONE	67-64-1	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-0.24	
NON-VOLATILE INGREDIENTS	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
1,1-DIFLUOROETHANE	75-37-6	Modeled Bioconcentration		Log of Octanol/H2O part. coeff	1.13	Episuite™
CYCLOHEXANE	110-82-7	Experimental BCF - Fish	56 days	Bioaccumulation Factor	129	OECD305-Bioconcentration
CYCLOHEXANE	110-82-7	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	3.44	
ISOBUTANE	75-28-5	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	2.76	
PROPANE	74-98-6	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	2.36	
POLYMER	Trade Secret	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	>6.5	OECD 117 log Kow HPLC method
POLYMER	Trade Secret	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	2.48	OECD 117 log Kow HPLC method
Methyl Alcohol	67-56-1	Experimental BCF - Fish	3 days	Bioaccumulation Factor	<4.5	
Methyl Alcohol	67-56-1	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	-0.77	
TOLUENE	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulation Factor	90	
TOLUENE	108-88-3	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	2.73	



METHYLENE CHLORIDE	75-09-2	Experimental BCF - Fish	42 days	Bioaccumulation Factor	≤40	OECD305-Bioconcentration
METHYLENE CHLORIDE	75-09-2	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	1.25	

#### 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:**UN1950

**Proper Shipping Name:**AEROSOLS, FLAMMABLE

**Technical Name:**None assigned.

**Hazard Class/Division:**2.1

**Subsidiary Risk:**None assigned.

**Packing Group:**None assigned.

**Limited Quantity:**Yes

**Marine Pollutant:** None assigned.

**Marine Pollutant Technical Name:** None assigned.

**Other Dangerous Goods Descriptions:**

None assigned.

### Air Transport (IATA)

**UN Number:**UN1950

**Proper Shipping Name:**AEROSOLS, FLAMMABLE

**Technical Name:**None assigned.

**Hazard Class/Division:**2.1

**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. 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.

## SECTION 16: Other information

DISCLAIMER: The information in this Safety Data Sheet (SDS) 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 SDS or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own evaluation to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into Malaysia, you are responsible for all applicable regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration/notification.

3M Malaysia SDSs are available at [www.3M.com.my](http://www.3M.com.my)