



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™ Hot Melt Adhesive 3748-Q, 3748B Black

Product Identification Numbers

62-3724-9132-4 62-3724-9335-3

1.2. Recommended use and restrictions on use

Recommended use

Adhesive

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

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

2.2. Label elements

Signal word

Not applicable

Symbols

Not applicable

Pictograms

Not applicable

2.3. Other hazards

Avoid contact with hot extruded molten material or applicator tip. Avoid direct eye exposure to vapors., In case of eye/skin contact with molten material, immediately flush with cold water and cover with a clean dressing. Do not attempt to remove molten material. Have burn treated by a physician., May cause thermal burns.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Polypropylene	9003-07-0	10 - 40
Hydrocarbon Resin	Trade Secret	20 - 30
Ethylene-Propylene Polymer	9010-79-1	1 - 25
Polyethylene	9002-88-4	1 - 20
Styrene-Butadiene Polymer	Trade Secret	1 - 20
Polyolefin Wax	8002-74-2	1 - 10
Stabilizer	6683-19-8	0.1 - 5

SECTION 4: First aid measures**4.1. Description of first aid measures****Inhalation:**

No need for first aid is anticipated. If symptoms develop, remove the affected person to fresh air. Get medical attention.

Skin Contact:

Immediately flush skin with large amounts of cold water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Cover affected area with a clean dressing. Get immediate medical attention.

Eye Contact:

Immediately flush eyes with large amounts of water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Get immediate medical attention.

If Swallowed:

Do not induce vomiting. Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

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

Not applicable

SECTION 5: Fire-fighting measures**5.1. Suitable extinguishing media**

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products**Substance**

Hydrocarbons
Carbon monoxide
Carbon dioxide

Condition

During Combustion
During Combustion
During Combustion

5.3. Special protective actions for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

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. Observe precautions from other sections.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. 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 skin contact with hot material. For industrial/occupational use only. Not for consumer sale or use.

7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

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

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Polyolefin Wax	8002-74-2	ACGIH	TWA(as fume):2 mg/m ³	
Polyolefin Wax	8002-74-2	Malaysia OELs	TWA(as fume)(8 hours):2 mg/m ³	

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

No chemical protective gloves are required.

Respiratory protection

None required.

Thermal hazards

Wear heat insulating gloves, indirect vented goggles, and a full face shield when handling hot material to prevent thermal burns.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	Solid
Specific Physical Form:	Waxy Solid
Color	Black
Odor	Mild Resinous
Odor threshold	<i>No Data Available</i>
pH	<i>Not Applicable</i>
Melting point/Freezing point	<i>Not Applicable</i>
Boiling point/Initial boiling point/Boiling range	<i>Not Applicable</i>
Flash Point	280 °C [<i>Test Method</i> :Cleveland Open Cup]
Evaporation rate	<i>Not Applicable</i>
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Vapor Density and/or Relative Vapor Density	Nil
Density	0.92 g/cm ³
Relative Density	0.92 [<i>Ref Std</i> :WATER=1]
Water solubility	Nil
Solubility- non-water	<i>No Data Available</i>
Partition coefficient: n-octanol/ water	<i>No Data Available</i>
Autoignition temperature	330 °C
Decomposition temperature	<i>No Data Available</i>
Viscosity/Kinematic Viscosity	<i>No Data Available</i>
Volatile Organic Compounds	0 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1]
Percent volatile	0 % weight
VOC Less H₂O & Exempt Solvents	0 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1]
Solids Content	100 %

SECTION 10: Stability and reactivity**10.1. Reactivity**

This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for 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:

No health effects are expected.

Skin Contact:

During heating: Thermal Burns: Signs/symptoms may include intense pain, redness and swelling, and tissue destruction.

Eye Contact:

During heating: Thermal Burns: Signs/symptoms may include severe pain, redness and swelling, and tissue destruction.

Ingestion:

No known health effects.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Polypropylene	Dermal		LD50 estimated to be > 5,000 mg/kg
Polypropylene	Ingestion	Mouse	LD50 > 8,000 mg/kg
Hydrocarbon Resin	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Hydrocarbon Resin	Ingestion	Professional	LD50 7,000 mg/kg

		judgeme nt	
Ethylene-Propylene Polymer	Dermal	Rabbit	LD50 > 2,000 mg/kg
Ethylene-Propylene Polymer	Ingestion	Rat	LD50 > 5,000 mg/kg
Styrene-Butadiene Polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Styrene-Butadiene Polymer	Ingestion		LD50 estimated to be > 5,000 mg/kg
Polyethylene	Dermal		LD50 estimated to be > 5,000 mg/kg
Polyethylene	Ingestion	Rat	LD50 > 2,000 mg/kg
Polyolefin Wax	Dermal	Rat	LD50 > 5,000 mg/kg
Polyolefin Wax	Ingestion	Rat	LD50 > 5,000 mg/kg
Stabilizer	Dermal	Rabbit	LD50 > 3,160 mg/kg
Stabilizer	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 1.95 mg/l
Stabilizer	Ingestion	Rat	LD50 > 10,250 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Polypropylene	Human and animal	No significant irritation
Hydrocarbon Resin	Professional judgement	No significant irritation
Ethylene-Propylene Polymer	Rabbit	No significant irritation
Polyethylene	Professional judgement	No significant irritation
Polyolefin Wax	Rabbit	No significant irritation
Stabilizer	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Polypropylene	Professional judgement	No significant irritation
Ethylene-Propylene Polymer	Rabbit	No significant irritation
Polyolefin Wax	Rabbit	No significant irritation
Stabilizer	Rabbit	Mild irritant

Sensitization:

Skin Sensitization

Name	Species	Value
Polypropylene	Human and animal	Not classified
Polyolefin Wax	Guinea pig	Not classified
Stabilizer	Human and animal	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
Polypropylene	In Vitro	Not mutagenic
Hydrocarbon Resin	In Vitro	Not mutagenic
Polyolefin Wax	In Vitro	Not mutagenic
Stabilizer	In Vitro	Not mutagenic
Stabilizer	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Polypropylene	Not Specified	Rat	Some positive data exist, but the data are not sufficient for classification
Polyethylene	Not Specified	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
Polyolefin Wax	Ingestion	Rat	Not carcinogenic
Stabilizer	Ingestion	Multiple animal species	Not carcinogenic

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

Name	Route	Value	Species	Test Result	Exposure Duration
Stabilizer	Ingestion	Not classified for female reproduction	Rat	NOAEL 688 mg/kg/day	2 generation
Stabilizer	Ingestion	Not classified for male reproduction	Rat	NOAEL 688 mg/kg/day	2 generation
Stabilizer	Ingestion	Not classified for development	Multiple animal species	NOAEL 1,000 mg/kg/day	during organogenesis

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

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

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Polyolefin Wax	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 15 mg/kg/day	90 days
Polyolefin Wax	Ingestion	hematopoietic system liver immune system skin endocrine system bone, teeth, nails, and/or hair muscles nervous system eyes kidney and/or bladder respiratory system vascular system	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Stabilizer	Ingestion	endocrine system	Not classified	Rat	NOAEL 450 mg/kg/day	2 years
Stabilizer	Ingestion	liver	Not classified	Dog	NOAEL 302 mg/kg/day	90 days
Stabilizer	Ingestion	hematopoietic	Not classified	Rat	NOAEL	90 days

		system nervous system kidney and/or bladder			2,500 mg/kg/day	
Stabilizer	Ingestion	auditory system eyes	Not classified	Dog	NOAEL 302 mg/kg/day	90 days

Aspiration Hazard

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

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labeling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity**Acute aquatic hazard:**

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Polypropylene	9003-07-0	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Hydrocarbon Resin	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Ethylene-Propylene Polymer	9010-79-1	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Polyethylene	9002-88-4	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Styrene-Butadiene Polymer	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Polyolefin Wax	8002-74-2	Green algae	Analogous Compound	96 hours	EC50	>1,000 mg/l
Polyolefin Wax	8002-74-2	Rainbow Trout	Analogous Compound	96 hours	LC50	>1,000 mg/l
Polyolefin Wax	8002-74-2	Water flea	Analogous Compound	48 hours	EC50	>10,000 mg/l
Stabilizer	6683-19-8	Water flea	Endpoint not reached	24 hours	EC50	>100 mg/l
Stabilizer	6683-19-8	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Stabilizer	6683-19-8	Zebra Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Stabilizer	6683-19-8	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Stabilizer	6683-19-8	Activated sludge	Experimental	3 hours	IC50	>100 mg/l

3M™ Hot Melt Adhesive 3748-Q, 3748B Black

Stabilizer	6683-19-8	Redworm	Experimental	56 days	NOEC	>=1,000 mg/kg (Dry Weight)
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12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Polypropylene	9003-07-0	Data not available or insufficient	N/A	N/A	N/A	N/A
Hydrocarbon Resin	Trade Secret	Data not available or insufficient	N/A	N/A	N/A	N/A
Ethylene-Propylene Polymer	9010-79-1	Data not available or insufficient	N/A	N/A	N/A	N/A
Polyethylene	9002-88-4	Data not available or insufficient	N/A	N/A	N/A	N/A
Styrene-Butadiene Polymer	Trade Secret	Data not available or insufficient	N/A	N/A	N/A	N/A
Polyolefin Wax	8002-74-2	Analogous Compound Biodegradation	28 days	Biological Oxygen Demand	40 %BOD/ThOD	OECD 301F - Manometric Respiro
Stabilizer	6683-19-8	Experimental Biodegradation	28 days	Carbon dioxide evolution	5 %CO2 evolution/THCO2 evolution	OECD 301B - Mod. Sturm or CO2
Stabilizer	6683-19-8	Experimental Biodegradation	26 days	Percent degraded	45.2 %removal of DOC	OECD 303A - Simulated Aerobic
Stabilizer	6683-19-8	Modeled Hydrolysis		Hydrolytic half-life (pH 7)	2.06 years (t 1/2)	Episuite™

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Polypropylene	9003-07-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbon Resin	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ethylene-Propylene Polymer	9010-79-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polyethylene	9002-88-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Styrene-Butadiene Polymer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polyolefin Wax	8002-74-2	Modeled Bioconcentration		Log of Octanol/H2O part. coeff	10.2	Episuite™
Stabilizer	6683-19-8	Experimental BCF - Fish	42 days	Bioaccumulation Factor	<2.3	OECD305-Bioconcentration
Stabilizer	6683-19-8	Modeled Bioconcentration		Log of Octanol/H2O part. coeff	22.7	

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

Not hazardous for transportation.

Marine Transport (IMDG)

UN Number:None assigned.

Proper Shipping Name:None assigned.

Technical Name:None assigned.

Hazard Class/Division:None assigned.

Subsidiary Risk:None assigned.

Packing Group:None assigned.

Limited Quantity:None assigned.

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Air Transport (IATA)

UN Number:None assigned.

Proper Shipping Name:None assigned.

Technical Name:None assigned.

Hazard Class/Division:None assigned.

Subsidiary Risk:None assigned.

Packing Group:None assigned.

Limited Quantity:None assigned.

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

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

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The

components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

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