

## Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the GHS guidelines & India Hazardous substances (Classification, Labeling & Packaging) Draft Rules 2011.

## **SECTION 1: Identification**

#### 1.1. Product identifier

3M(TM) Hot Melt Adhesive 3762-LM-PG; 3762-LM-TC; 3762-LM-Q; 3762-LM-B, 3762-LM-AE

## Product Identification Numbers

62-3720-7230-6	62-3720-7232-2	62-3720-7233-0	62-3720-7234-8	62-3720-9132-2
62-3720-9330-2	62-3720-9335-1	62-3720-9339-3	62-3720-9395-5	62-3720-9399-7
62-3720-9531-5	62-3720-9830-1			

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

#### Recommended use

Hot melt adhesive., For bonding heat sensitive materials.

# 1.3. Supplier's details Address: 3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100 Telephone: 080-39143000, contact Product EHS team E Mail: productehs.in@mmm.com Website: http://solutions.3mindia.co.in

#### 1.4. Emergency telephone number

080-39143000 (Contact hours: 8:00 AM to 5:00 PM)

## **SECTION 2: Hazard identification**

Under MSIHC Rules, information is noted below on flammability, acute toxicity and explosivity relevant to this product. In line with international standards, information on other hazard classes and associated precautionary statements relevant to this product are included as well.

## 2.1. Classification of the substance or mixture

Not classified as hazardous according to UN GHS criteria.

2.2. Label elements Signal Word

Symbols

## Pictograms

Not applicable.

## 2.3. Other hazards

May cause thermal burns.

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

This material is a mixture.

Ingredient	CAS Nbr	% by Wt	
Ethylene-Vinyl Acetate Polymer	24937-78-8	40 - 60	
Hydrogenated Hydrocarbon Resin	68132-00-3	20 - 40	
Hydrocarbon resin	68478-07-9	1 - 20	
Hydrogenated Hydrocarbon Resin	69430-35-9	<= 10	
Polyolefin Wax	8002-74-2	1 - 10	

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

#### Inhalation

No need for first aid is anticipated.

#### 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

No need for first aid is anticipated.

## 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

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

<u>Substance</u> Carbon monoxide. Carbon dioxide. <u>Condition</u> During combustion. During combustion.

## 5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

## **SECTION 6: Accidental release measures**

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

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

## **6.2.** Environmental precautions

Avoid release to the environment.

## 6.3. Methods and material for containment and cleaning up

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.

## **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Avoid skin contact with hot material. For industrial or professional use only.

## 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	CAS Nbr	Agency	Limit type	Additional comments			
Polyolefin Wax	8002-74-2	ACGIH	TWA(as fume):2 mg/m3				

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association CMRG : Chemical Manufacturer's Recommended Guidelines

STEL: Short Term Exposure Limit

CEIL: Ceiling

CEIL. Ceiling

## 8.2. Exposure controls

#### 8.2.1. Engineering controls

Provide appropriate local exhaust when product is heated. 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/vapours/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.

TWA: Time-Weighted-Average

#### Skin/hand protection

PPE No chemical protective gloves are required.

#### **Respiratory protection**

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

#### Thermal hazards

Wear heat insulating gloves when handling hot material to prevent thermal burns.

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

9	.1.	Inf	form	ation	on	basi	c pl	hysi	cal	and	c	hemi	ical	pro	per	tie	es	

Physical state	Solid.
Specific Physical Form:	Waxy Solid
Appearance/Odour	Off-White, mild resinous odour.
Odour threshold	No data available.
рН	Not applicable.
Melting point/Freezing point: NA	96.7 °C [Test Method:Ring and Ball]
<b>Boiling point/Initial boiling point/Boiling range</b>	Not applicable.
Flash point	293.3 °C
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not classified
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Vapour density	Not applicable.
Density	1.01 g/cm3
Relative density	1.01 [ <i>Ref Std</i> :WATER=1]
Water solubility	Nil
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	Not applicable.
Molecular weight	No data available.
Volatile organic compounds (VOC)	0 g/l [ <i>Test Method</i> :calculated SCAQMD rule 443.1]
Percent volatile	$\pm 0$ % 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 polymerisation will not occur.

## 10.4 Conditions to avoid

None known.

**10.5 Incompatible materials** None known.

# 10.6 Hazardous decomposition products <u>Substance</u>

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 labelling, 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	Ingestion		No data available; calculated ATE >5,000 mg/kg
Ethylene-Vinyl Acetate Polymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Ethylene-Vinyl Acetate Polymer	Ingestion	Rat	LD50 > 1,000 mg/kg
Hydrogenated Hydrocarbon Resin	Dermal		LD50 estimated to be $> 5,000 \text{ mg/kg}$
Hydrogenated Hydrocarbon Resin	Ingestion		LD50 estimated to be > 5,000 mg/kg
Hydrocarbon resin	Dermal	Rabbit	LD50 > 3,160 mg/kg
Hydrocarbon resin	Ingestion	Rat	LD50 > 5,000 mg/kg
Hydrogenated Hydrocarbon Resin	Dermal	Rat	LD50 > 2,000 mg/kg
Hydrogenated Hydrocarbon Resin	Ingestion	Rat	LD50 > 5,000 mg/kg
Polyolefin Wax	Dermal	Rat	LD50 > 5,000 mg/kg
Polyolefin Wax	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

## Skin Corrosion/Irritation

Name	Species	Value
Ethylene-Vinyl Acetate Polymer	Professio	No significant irritation
	nal	
	judgemen	
	t	
Hydrogenated Hydrocarbon Resin	Professio	No significant irritation
	nal	
	judgemen	
	t	
Hydrocarbon resin	similar	No significant irritation
	compoun	
	ds	
Polyolefin Wax	Rabbit	No significant irritation

#### **Serious Eye Damage/Irritation**

Name	Species	Value
Ethylene-Vinyl Acetate Polymer	Professio	No significant irritation
	nal	
	judgemen	
	t	
Hydrogenated Hydrocarbon Resin	Professio	No significant irritation
	nal	
	judgemen	
	t	
Hydrocarbon resin	similar	Mild irritant
	compoun	
	ds	
Polyolefin Wax	Rabbit	No significant irritation

## **Skin Sensitisation**

Name	Species	Value
Polyolefin Wax	Guinea pig	Not sensitizing

## **Respiratory Sensitisation**

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

## Germ Cell Mutagenicity

Name	Route	Value
Polyolefin Wax	In Vitro	Not mutagenic

## Carcinogenicity

Name	Route	Species	Value
Polyolefin Wax	Ingestion	Rat	Not carcinogenic

## **Reproductive Toxicity**

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

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

## 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.

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Ethylene-Vinyl Acetate Polymer	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 4,000 mg/kg/day	90 days
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	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,500 mg/kg/day	90 days
Polyolefin Wax	Ingestion	skin   endocrine system   bone, teeth, nails, and/or hair   muscles   nervous system   eyes   kidney and/or bladder   respiratory system   vascular system	All data are negative	Rat	NOAEL 1,500 mg/kg/day	90 days

## Specific Target Organ Toxicity - repeated exposure

## **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 labelling, 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 Nbr	Organism	Туре	Exposure	Test endpoint	Test result
Polyolefin Wax	8002-74-2	Water flea	Experimental	48 hours	EC50	>10,000 mg/l
Polyolefin Wax	8002-74-2	Rainbow trout	Experimental	96 hours	LC50	>1,000 mg/l
Polyolefin Wax	8002-74-2	Green algae	Experimental	96 hours	EC50	>1,000 mg/l
Ethylene-Vinyl Acetate Polymer	24937-78-8		Data not available or insufficient for classification			
Hydrogenated Hydrocarbon Resin	69430-35-9		Data not available or insufficient for classification			

Hydrogenated Hydrocarbon Resin	68132-00-3	Data not available or insufficient for classification	
Hydrocarbon resin	68478-07-9	Data not available or insufficient for classification	

## 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Hydrocarbon resin	68478-07-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ethylene-Vinyl Acetate Polymer	24937-78-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrogenated Hydrocarbon Resin	69430-35-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrogenated Hydrocarbon Resin	68132-00-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polyolefin Wax	8002-74-2	Estimated Biodegradation	28 days	BOD	40 % weight	OECD 301F - Manometric respirometry

## 12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Hydrocarbon resin	68478-07-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ethylene-Vinyl Acetate Polymer	24937-78-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrogenated Hydrocarbon Resin	69430-35-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrogenated Hydrocarbon Resin	68132-00-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polyolefin Wax	8002-74-2	Estimated Bioconcentrati on		Log Kow	10.2	Estimated: Octanol- water partition coefficient

## 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

See Section 11.1 Information on toxicological effects

Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. 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**

Not hazardous for transportation.

Air Transport (IATA)Regulations UN No Not applicable Proper Shipping Name Not applicable Hazard Classs/Division Not applicable Subsidiary Risk Not applicable Packing Group: 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. The components of this material are in compliance with the China "Measures on Environmental Management of New Chemical Substance". Certain restrictions may apply. Contact the selling division for additional 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 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 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. The components of this product are in compliance with the chemical notification requirements of TSCA.

## Applicable Environmental, Health and Safety Regulations

Hazardous Waste(Management, Handling & Transboundary) Rules, 2008

The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules Polyolefin Wax

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules: Product is classified as non-hazardous

## **SECTION 16: Other information**

## NFPA Hazard Classification

Health: 1 Flammability: 1 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

## **Revision information:**

No revision information

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## 3M India SDSs are available at http://solutions.3mindia.co.in