Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
3M Hot Melt Adhesive 3764-AE, 3764-PG, 3764-TC, 3764-Q, 3764-B

Product Identification Numbers
62-3764-9132-0 62-3764-9330-0 62-3764-9531-3 62-3764-9830-9

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Hot-melt adhesive

1.3. Details of the supplier of the safety data sheet
Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone: +44 (0)1344 858 000
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

1.4. Emergency telephone number
+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:
This material is not classified as hazardous according to Regulation (EC) No. 1272/2008, as amended, on classification, labelling, and packaging of substances and mixtures.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008
Not applicable

2.3. Other hazards

May cause thermal burns.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Ethene, vinyl acetate copolymer	Mixture		95 - 99	
Naphtha (petroleum), light steam-cracked, debenzenised, polymers, hydrogenated	68132-00-3		15 - 40	
Hydrocarbons, C6-20, polymers, hydrogenated	Mixture		25 - 35	
ETHYLENE VINYL ACETATE COPOLYMER	Trade Secret		5 - 10	
Ethylene-maleic anhydride polymer	9006-26-2		1 - 10	
Paraffin Wax	Mixture		1 - 5	
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	6683-19-8	EINECS 229-722-6	< 2	

Please see section 16 for the full text of any H statements referred to in this section
Please refer to section 15 for any applicable Notas that have been applied to the above components

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
Immediately 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. 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	Condition
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.

5.3. Advice 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.

6.4. Reference to other sections
Refer to Section 8 and Section 13 for more information

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
Store away from heat.

7.3. Specific end use(s)
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

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
Paraffin Wax	Mixture	UK HSC	TWA(as fume):2 mg/m3;STEL(as fume):6 mg/m3	

UK HSC : UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

Biological limit values
No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

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 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
Appearance/Odour	Clear white, solid adhesive in rods or pellets, odourless. (Molten state: resinous odour.)
Odour threshold	*No data available.*
pH	*Not applicable.*
Boiling point/boiling range	*Not applicable.*
Melting point	*No data available.*
Flammability (solid, gas)	Not classified
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	267.8 ºC [*Test Method:*Cleveland Open Cup] [*Details:*Conditions: ASTM D-92-72]
Autoignition temperature	*No data available.*
Flammable Limits(LEL)	*Not applicable.*
Flammable Limits(UEL)	*Not applicable.*
Vapour pressure	*Not applicable.*
Relative density	0.95 [*Ref Std:*WATER=1]
Water solubility	Nil
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Evaporation rate	*Not applicable.*
Vapour density	*Not applicable.*
Decomposition temperature	*No data available.*
Viscosity	*Not applicable.*
Density	0.95 g/cm3

9.2. Other information

Volatile organic compounds (VOC)	0 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Percent volatile	0 % weight

VOC less H2O & exempt solvents	0 g/l [*Test Method:*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

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

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
Ethene, vinyl acetate copolymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Ethene, vinyl acetate copolymer	Ingestion	Rat	LD50 > 1,000 mg/kg
Naphtha (petroleum), light steam-cracked, debenzenised, polymers, hydrogenated	Ingestion		LD50 estimated to be > 5,000 mg/kg
Hydrocarbons, C6-20, polymers, hydrogenated	Dermal	Rat	LD50 > 2,000 mg/kg
Hydrocarbons, C6-20, polymers, hydrogenated	Ingestion	Rat	LD50 > 5,000 mg/kg
Ethylene-maleic anhydride polymer	Dermal	Rabbit	LD50 > 7,940 mg/kg
Ethylene-maleic anhydride polymer	Ingestion	Rat	LD50 > 10,000 mg/kg
Paraffin Wax	Dermal	Rabbit	LD50 > 5,000 mg/kg
Paraffin Wax	Ingestion	Rat	LD50 > 5,000 mg/kg
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Dermal	Rabbit	LD50 > 3,160 mg/kg
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 1.95 mg/l
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Ingestion	Rat	LD50 > 10,250 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Ethene, vinyl acetate copolymer	Professional judgement	No significant irritation
Naphtha (petroleum), light steam-cracked, debenzenised, polymers, hydrogenated	Professional judgement	No significant irritation
Ethylene-maleic anhydride polymer	Rabbit	No significant irritation
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Ethene, vinyl acetate copolymer	Professional judgement	No significant irritation
Naphtha (petroleum), light steam-cracked, debenzenised, polymers, hydrogenated	Professional judgement	No significant irritation
Ethylene-maleic anhydride polymer	Rabbit	Mild irritant
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Human and animal	Not sensitising

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

Germ Cell Mutagenicity

Name	Route	Value
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	In Vitro	Not mutagenic
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Ingestion	Multiple animal species	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Ingestion	Not toxic to female reproduction	Rat	NOAEL 688 mg/kg/day	2 generation
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Ingestion	Not toxic to male reproduction	Rat	NOAEL 688 mg/kg/day	2 generation
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	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 is currently available or the data is not sufficient for classification.

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Ethene, vinyl acetate copolymer	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 4,000 mg/kg/day	90 days
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Ingestion	endocrine system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 450 mg/kg/day	2 years
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 302 mg/kg/day	90 days
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Ingestion	hematopoietic system | nervous system | kidney and/or bladder	All data are negative	Rat	NOAEL 2,500 mg/kg/day	90 days
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	Ingestion	auditory system | eyes	All data are negative	Dog	NOAEL 302 mg/kg/day	90 days

Aspiration Hazard

For the component/components, either no data is currently available or the data is 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 agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from

3M assessments.

12.1. Toxicity

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Naphtha (petroleum), light steam-cracked, debenzenised, polymers, hydrogenated	68132-00-3		Data not available or insufficient for classification			
Hydrocarbons, C6-20, polymers, hydrogenated	Mixture		Data not available or insufficient for classification			
Ethene, vinyl acetate copolymer	Mixture		Data not available or insufficient for classification			
Ethylene-maleic anhydride polymer	9006-26-2		Data not available or insufficient for classification			
Paraffin Wax	Mixture	Green algae	Experimental	96 hours	EC50	>1,000 mg/l
Paraffin Wax	Mixture	Water flea	Experimental	48 hours	EC50	>10,000 mg/l
Paraffin Wax	Mixture	Rainbow trout	Experimental	96 hours	LC50	>1,000 mg/l
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	6683-19-8	Green algae	Experimental	72 hours	EC50	>100 mg/l
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	6683-19-8	Green algae	Experimental	72 hours	NOEC	>100 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Naphtha (petroleum), light steam-cracked, debenzenised, polymers, hydrogenated	68132-00-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C6-20, polymers, hydrogenated	Mixture	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ethene, vinyl	Mixture	Data not	N/A	N/A	N/A	N/A

acetate copolymer		available or insufficient for classification				
Ethylene-maleic anhydride polymer	9006-26-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Paraffin Wax	Mixture	Estimated Biodegradation	28 days	BOD	40 % weight	OECD 301F - Manometric respirometry
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	6683-19-8	Laboratory Biodegradation	28 days	CO2 evolution	5 % weight	OECD 301B - Modified sturm or CO2

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Naphtha (petroleum), light steam-cracked, debenzenised, polymers, hydrogenated	68132-00-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydrocarbons, C6-20, polymers, hydrogenated	Mixture	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ethene, vinyl acetate copolymer	Mixture	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ethylene-maleic anhydride polymer	9006-26-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Paraffin Wax	Mixture	Estimated Bioconcentration		Log Kow	10.2	Estimated: Octanol-water partition coefficient
Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	6683-19-8	Laboratory BCF - Other	42 days	Bioaccumulation factor	<2.3	OECD 305C- Bioaccum degree fish

12.4. Mobility in soil
Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
See Section 11.1 Information on toxicological effects

This product has been classified as a non-hazardous waste. 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. If no other disposal options are available, waste product may be placed in a landfill properly designed for industrial waste.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

08 04 10	Waste adhesives and sealants other than those mentioned in 08 04 09
20 01 28	Paint, inks, adhesives and resins other than those mentioned in 20 01 27

SECTION 14: Transportation information

62-3764-9132-0, 62-3764-9330-0, 62-3764-9531-3, 62-3764-9830-9

Not hazardous for transportation

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 Korean Toxic Chemical 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 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. The components of this product are in compliance with the chemical notification requirements of TSCA.

15.2. Chemical Safety Assessment
Not applicable

SECTION 16: Other information

Revision information:
Revision Changes:
Section 3: Reference to section 15 for Nota info information was modified.

Section 11: Skin Sensitization Table information was modified.
Section 03: Reference to H statement explanation in Section 016 information was added.
Section 3: Reference to R and H statement explanation in Section 16 information was deleted.
Section 2: 2.2 & 2.3. DSD/DPD heading information was deleted.
Section 2.1: Classification information information was deleted.
Section 02: EU DPD 'Not applicable' text information was deleted.

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 United Kingdom MSDSs are available at www.3M.com/uk