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™ Scotch-Weld™ Industrial Sealant 750C

Product Identification Numbers
FS-9000-4840-6

7000079804

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

Identified uses
Sealant.

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:
Flammable Liquid, Category 2 - Flam. Liq. 2; H225
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Skin Sensitization, Category 1B - Skin Sens. 1B; H317
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H336
Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
DANGER.

Symbols:
GHS02 (Flame) |GHS07 (Exclamation mark) |

Pictograms

Ingredients:

Ingredient	CAS Nbr	% by Wt
Butanone	78-93-3	30 - 60
Rosin	8050-09-7	5 - 10

HAZARD STATEMENTS:

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P210A	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261A	Avoid breathing vapours.
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.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Disposal:

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

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements:

EUH066	Repeated exposure may cause skin dryness or cracking.

4% of the mixture consists of components of unknown acute oral toxicity.

50% of the mixture consists of components of unknown acute inhalation toxicity.
Contains 4% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
Butanone	78-93-3	201-159-0	01-2119457290-43	30 - 60	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336; EUH066
Acrylonitrile-Butadiene Polymer	9003-18-3			7 - 13	Substance not classified as hazardous
4-Methylpentan-2-one	108-10-1	203-550-1	01-2119473980-30,01-2119965182-37	7 - 13	Flam. Liq. 2, H225; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335; EUH066
Iron oxide	1332-37-2	215-570-8		5 - 10	Substance not classified as hazardous
Glycerol Esters of Rosin Acids	8050-31-5	232-482-5		5 - 10	Substance not classified as hazardous
Rosin	8050-09-7	232-475-7		5 - 10	Skin Sens. 1B, H317
Acrylonitrile-1,3-Butadiene-Divinylbenzene Copolymer	9052-77-1			1 - 5	Substance not classified as hazardous
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	68515-49-1	271-091-4		1 - 5	Substance not classified as hazardous
Kaolin	1332-58-7	310-194-1		1 - 5	Substance with a Community level exposure limit in the workplace
Titanium dioxide	13463-67-7	236-675-5	01-2119489379-17	1 - 5	Substance with a Community level exposure limit in the workplace
Zinc oxide	1314-13-2	215-222-5	01-2119463881-32	1 - 2.5	Aquatic Acute 1, H400,M=10; Aquatic Chronic 1, H410,M=1
Salicylic acid	69-72-7	200-712-3		1 - 2	Acute Tox. 4, H302; Eye Dam. 1, H318; Repr. 2, H361d

Please see section 16 for the full text of any H statements referred to in this section

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 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
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 flammable liquids such as dry chemical or carbon dioxide to extinguish.

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	Condition
Hydrocarbons.	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Oxides of nitrogen.	During combustion.

5.3. Advice 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 vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. 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
For industrial or professional use only. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators…) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapour accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer. Vapours may travel long distances along the ground or floor to an ignition source and flash back.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from oxidising agents.

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
4-Methylpentan-2-one	108-10-1	UK HSC	TWA:208 mg/m3(50 ppm);STEL:416 mg/m3(100 ppm)	SKIN
Kaolin	1332-58-7	UK HSC	TWA (as respirable dust): 2 mg/m³	
Titanium dioxide	13463-67-7	UK HSC	TWA(Inhalable):10 mg/m3;TWA(respirable):4 mg/m³	
Butanone	78-93-3	UK HSC	TWA: 600 mg/m³ (200 ppm); STEL: 899 mg/m³ (300 ppm)	SKIN
Rosin	8050-09-7	UK HSC	TWA(as fume):0.05 mg/m³;STEL(as fume):0.15 mg/m³	Respiratory Sensitizer

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

Biological limit values

Ingredient	CAS Nbr	Agency	Determinant	Biological Specimen	Sampling Time	Value	Additional comments
4-Methylpentan-2-	108-10-	UK EH40	4-Methyl	Urine	EOS	20 umol/L	

one	1	BMGVs	pentan-2-one			
Butanone	78-93-3	UK EH40 BMGVs	Butan-2-one	Urine	EOS	70 umol/L

UK EH40 BMGVs : UK. EH40 Biological Monitoring Guidance Values (BMGVs)
EOS: End of shift.

Derived no effect level (DNEL)

Ingredient	Degradation Product	Population	Human exposure pattern	DNEL
Butanone		Worker	Dermal, Long-term exposure (8 hours), Systemic effects	1,161 mg/kg bw/d
Butanone		Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	600 mg/m³

Predicted no effect concentrations (PNEC)

Ingredient	Degradation Product	Compartment	PNEC
Butanone		Agricultural soil	22.5 mg/kg w.w.
Butanone		Freshwater	55.8 mg/l
Butanone		Freshwater sediments	284.7 mg/kg w.w.
Butanone		Intermittent releases to water	55.8 mg/l
Butanone		Marine water	55.8 mg/l
Butanone		Marine water sediments	284.7 mg/kg w.w.
Butanone		Sewage Treatment Plant	709 mg/l

8.2. Exposure controls

In addition, refer to the annex for more information.

8.2.1. Engineering controls
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. Use explosion-proof ventilation 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:
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:

Material	Thickness (mm)	Breakthrough Time
Butyl rubber.	No data available	No data available
Polymer laminate	No data available	No data available

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 – Butyl rubber
Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

8.2.3. Environmental exposure controls
Refer to Annex

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Paste
Appearance/Odour	Ketone odour; Red colour
Odour threshold	*No data available.*
pH	*Not applicable.*
Boiling point/boiling range	>=78.5 ºC
Melting point	*Not applicable.*
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	-4 ºC [*Test Method:*Closed Cup]
Autoignition temperature	*No data available.*
Flammable Limits(LEL)	*No data available.*
Flammable Limits(UEL)	*No data available.*
Vapour pressure	*No data available.*
Relative density	0.94 - 0.99 [*Ref Std:*WATER=1]
Water solubility	Nil
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Evaporation rate	*No data available.*
Vapour density	*No data available.*
Decomposition temperature	*No data available.*
Viscosity	80 - 140 Pa-s [@ 23 ºC] [*Test Method:*Brookfield]
Density	0.94 - 0.99 g/ml

9.2. Other information

Molecular weight	*No data available.*
Percent volatile	45 - 55 %

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
Heat.
Sparks and/or flames.

10.5 Incompatible materials
Strong acids.

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
May be harmful if inhaled. 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 localised redness, swelling, itching, and dryness. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact
Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion
May be harmful if swallowed.
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

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.

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

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-Vapour(4 hr)		No data available; calculated ATE20 - 50 mg/l
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
Butanone	Dermal	Rabbit	LD50 > 8,050 mg/kg
Butanone	Inhalation-Vapour (4 hours)	Rat	LC50 34.5 mg/l
Butanone	Ingestion	Rat	LD50 2,737 mg/kg
4-Methylpentan-2-one	Dermal	Rabbit	LD50 > 16,000 mg/kg
4-Methylpentan-2-one	Inhalation-Vapour (4 hours)	Rat	LC50 >8.2,<16.4 mg/l
4-Methylpentan-2-one	Ingestion	Rat	LD50 3,038 mg/kg
Acrylonitrile-Butadiene Polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile-Butadiene Polymer	Ingestion	Rat	LD50 > 30,000 mg/kg
Iron oxide	Dermal	Not available	LD50 3,100 mg/kg
Iron oxide	Ingestion	Not available	LD50 3,700 mg/kg
Glycerol Esters of Rosin Acids	Dermal	Rabbit	LD50 > 5,000 mg/kg
Rosin	Dermal	Rabbit	LD50 > 2,500 mg/kg
Glycerol Esters of Rosin Acids	Ingestion	Rat	LD50 > 2,000 mg/kg
Rosin	Ingestion	Rat	LD50 7,600 mg/kg
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Dermal	Rabbit	LD50 > 3,160 mg/kg
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 12.5 mg/l
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Ingestion	Rat	LD50 > 9,700 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Kaolin	Dermal		LD50 estimated to be > 5,000 mg/kg
Kaolin	Ingestion	Human	LD50 > 15,000 mg/kg
Zinc oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Zinc oxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5.7 mg/l
Zinc oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Salicylic acid	Dermal	Rat	LD50 > 2,000 mg/kg
Salicylic acid	Ingestion	Rat	LD50 891 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Butanone	Rabbit	Minimal irritation

4-Methylpentan-2-one	Rabbit	Mild irritant
Acrylonitrile-Butadiene Polymer	Professional judgement	No significant irritation
Iron oxide	Rabbit	No significant irritation
Glycerol Esters of Rosin Acids	Rabbit	Minimal irritation
Rosin	Rabbit	No significant irritation
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Rabbit	Minimal irritation
Titanium dioxide	Rabbit	No significant irritation
Kaolin	Professional judgement	No significant irritation
Zinc oxide	Human and animal	No significant irritation
Salicylic acid	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Butanone	Rabbit	Severe irritant
4-Methylpentan-2-one	Rabbit	Mild irritant
Acrylonitrile-Butadiene Polymer	Professional judgement	No significant irritation
Iron oxide	Rabbit	No significant irritation
Glycerol Esters of Rosin Acids	Rabbit	Mild irritant
Rosin	Rabbit	Mild irritant
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Rabbit	Mild irritant
Titanium dioxide	Rabbit	No significant irritation
Kaolin	Professional judgement	No significant irritation
Zinc oxide	Rabbit	Mild irritant
Salicylic acid	Rabbit	Corrosive

Skin Sensitisation

Name	Species	Value
4-Methylpentan-2-one	Guinea pig	Not sensitising
Iron oxide	Human	Some positive data exist, but the data are not sufficient for classification
Glycerol Esters of Rosin Acids	Guinea pig	Not sensitising
Rosin	Guinea pig	Sensitising
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Guinea pig	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Human and animal	Not sensitising
Zinc oxide	Guinea pig	Some positive data exist, but the data are not sufficient for classification
Salicylic acid	Mouse	Not sensitising

Photosensitisation

Name	Species	Value
Salicylic acid	Mouse	Not sensitising

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
Butanone	In Vitro	Not mutagenic
4-Methylpentan-2-one	In Vitro	Not mutagenic
Iron oxide	In Vitro	Not mutagenic
Glycerol Esters of Rosin Acids	In Vitro	Not mutagenic
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	In Vitro	Not mutagenic
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	In vivo	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
Zinc oxide	In Vitro	Some positive data exist, but the data are not sufficient for classification
Zinc oxide	In vivo	Some positive data exist, but the data are not sufficient for classification
Salicylic acid	In Vitro	Not mutagenic
Salicylic acid	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Butanone	Inhalation	Human	Not carcinogenic
4-Methylpentan-2-one	Inhalation	Multiple animal species	Carcinogenic.
Iron oxide	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.
Kaolin	Inhalation	Multiple animal species	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Butanone	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	LOAEL 8.8 mg/l	during gestation
4-Methylpentan-2-one	Inhalation	Not toxic to female reproduction	Multiple animal species	NOAEL 8.2 mg/l	2 generation
4-Methylpentan-2-one	Ingestion	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4-Methylpentan-2-one	Inhalation	Some positive male reproductive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 8.2 mg/l	2 generation
4-Methylpentan-2-one	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Mouse	NOAEL 12.3 mg/l	during organogenesis
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Ingestion	Not toxic to female reproduction	Rat	NOAEL 927 mg/kg/day	2 generation
Phthalic Acid, Di-C9-11-Branched Alkyl	Ingestion	Not toxic to male reproduction	Rat	NOAEL 929	2 generation

Esters, C10 Rich				mg/kg/day	
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Ingestion	Toxic to development	Rat	NOAEL 38 mg/kg/day	2 generation
Zinc oxide	Ingestion	Some positive reproductive/developmental data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 125 mg/kg/day	premating & during gestation
Salicylic acid	Ingestion	Toxic to development	Rat	NOAEL 75 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Butanone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	official classification	NOAEL Not available	
Butanone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Butanone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Butanone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	not applicable
Butanone	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1,080 mg/kg	not applicable
4-Methylpentan-2-one	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	LOAEL 0.1 mg/l	2 hours
4-Methylpentan-2-one	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL 0.9 mg/l	7 minutes
4-Methylpentan-2-one	Inhalation	vascular system	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL Not available	not available
4-Methylpentan-2-one	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 900 mg/kg	not applicable

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Butanone	Dermal	nervous system	All data are negative	Guinea pig	NOAEL Not available	31 weeks
Butanone	Inhalation	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 14.7 mg/l	90 days
Butanone	Inhalation	heart | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | immune system | muscles	All data are negative	Rat	NOAEL 14.7 mg/l	90 days
Butanone	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	7 days
Butanone	Ingestion	nervous system	All data are negative	Rat	NOAEL 173 mg/kg/day	90 days
4-Methylpentan-2-one	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.41 mg/l	13 weeks
4-Methylpentan-2-one	Inhalation	heart	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 0.8 mg/l	2 weeks

4-Methylpentan-2-one	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 0.4 mg/l	90 days
4-Methylpentan-2-one	Inhalation	respiratory system	All data are negative	Multiple animal species	NOAEL 4.1 mg/l	14 weeks
4-Methylpentan-2-one	Inhalation	endocrine system | hematopoietic system	All data are negative	Multiple animal species	NOAEL 0.41 mg/l	90 days
4-Methylpentan-2-one	Inhalation	nervous system	All data are negative	Multiple animal species	NOAEL 0.41 mg/l	13 weeks
4-Methylpentan-2-one	Ingestion	endocrine system | hematopoietic system | liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4-Methylpentan-2-one	Ingestion	heart | immune system | muscles | nervous system | respiratory system	All data are negative	Rat	NOAEL 1,040 mg/kg/day	120 days
Iron oxide	Inhalation	pulmonary fibrosis | pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Glycerol Esters of Rosin Acids	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 5,000 mg/kg/day	90 days
Glycerol Esters of Rosin Acids	Ingestion	heart | skin | endocrine system | bone, teeth, nails, and/or hair | blood | bone marrow | hematopoietic system | immune system | muscles | nervous system | eyes | kidney and/or bladder | respiratory system	All data are negative	Rat	NOAEL 5,000 mg/kg/day	90 days
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.5 mg/l	2 weeks
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Inhalation	hematopoietic system | liver	All data are negative	Rat	NOAEL 0.5 mg/l	2 weeks
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Inhalation	kidney and/or bladder	All data are negative	Rat	NOAEL 0.5 mg/l	2 generation
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Ingestion	endocrine system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 686 mg/kg/day	90 days
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Ingestion	liver | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	90 days
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Ingestion	heart	All data are negative	Rat	NOAEL 500 mg/kg/day	90 days
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	Ingestion	hematopoietic system	All data are negative	Dog	NOAEL 320 mg/kg/day	90 days
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure
Kaolin	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL NA	occupational exposure
Kaolin	Inhalation	pulmonary fibrosis	Some positive data exist, but the	Rat	NOAEL Not	

			data are not sufficient for classification		available	
Zinc oxide	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 600 mg/kg/day	10 days
Zinc oxide	Ingestion	endocrine system | hematopoietic system | kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Other	NOAEL 500 mg/kg/day	6 months
Salicylic acid	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	3 days

Aspiration Hazard

Name	Value
4-Methylpentan-2-one	Some positive data exist, but 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 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
Rosin	8050-09-7	Green Algae	Experimental	72 hours	Effect Level 50%	>100 mg/l
Rosin	8050-09-7	Green Algae	Experimental	72 hours	No obs Effect Level	>100 mg/l
Rosin	8050-09-7	Zebra Fish	Experimental	96 hours	Lethal Level 50%	>1 mg/l
Rosin	8050-09-7	Water flea	Experimental	48 hours	Effect Level 50%	911 mg/l
4-Methylpentan-2-one	108-10-1	Water flea	Experimental	21 days	NOEC	78 mg/l
4-Methylpentan-2-one	108-10-1	Water flea	Experimental	48 hours	EC50	170 mg/l
4-Methylpentan-2-one	108-10-1	Fathead minnow	Experimental	32 days	NOEC	57 mg/l
4-Methylpentan-2-one	108-10-1	Fathead minnow	Experimental	96 hours	LC50	505 mg/l
4-Methylpentan-2-one	108-10-1	Green Algae	Experimental	96 hours	EC50	400 mg/l
Kaolin	1332-58-7	Water flea	Experimental	48 hours	LC50	>1,100 mg/l

Glycerol Esters of Rosin Acids	8050-31-5	Green Algae	Estimated	72 hours	No obs Effect Level	>100 mg/l
Glycerol Esters of Rosin Acids	8050-31-5	Green Algae	Estimated	72 hours	Effect Level 50%	>100 mg/l
Glycerol Esters of Rosin Acids	8050-31-5	Water flea	Estimated	48 hours	Effect Level 50%	>100 mg/l
Glycerol Esters of Rosin Acids	8050-31-5	Fathead minnow	Estimated	96 hours	Lethal Level 50%	>100 mg/l
Titanium dioxide	13463-67-7	Fish	Experimental	30 days	NOEC	>100 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	30 days	NOEC	3 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Sheepshead Minnow	Experimental	96 hours	LC50	>240 mg/l
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	68515-49-1		Data not available or insufficient for classification			
Acrylonitrile-1,3-Butadiene-Divinylbenzene Copolymer	9052-77-1		Data not available or insufficient for classification			
Salicylic acid	69-72-7	Green algae	Experimental	72 hours	EC50	>100 mg/l
Salicylic acid	69-72-7	Ricefish	Experimental	96 hours	LC50	>100 mg/l
Salicylic acid	69-72-7	Water flea	Experimental	48 hours	EC50	870 mg/l
Acrylonitrile-Butadiene Polymer	9003-18-3		Data not available or insufficient for classification			
Iron oxide	1332-37-2	Fish other	Experimental	48 hours	LC50	>1,000 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Salicylic acid	69-72-7	Experimental Biodegradation	14 days	BOD	88.1 % weight	OECD 301C - MITI test (I)
Rosin	8050-09-7	Experimental Biodegradation	28 days	CO2 evolution	64 % weight	OECD 301B - Modified sturm or CO2
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	68515-49-1	Experimental Biodegradation	28 days	BOD	67 % weight	OECD 301C - MITI test (I)
4-Methylpentan-2-one	108-10-1	Experimental Biodegradation	14 days	BOD	84 % weight	OECD 301C - MITI test (I)
Butanone	78-93-3	Experimental Biodegradation	20 days	BOD	89 % weight	Other methods
Glycerol Esters of Rosin Acids	8050-31-5	Experimental Biodegradation	28 days	CO2 evolution	0 % weight	OECD 301B - Modified sturm or CO2
Zinc oxide	1314-13-2	Data not	N/A	N/A	N/A	N/A

		available or insufficient for classification				
Titanium dioxide	13463-67-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Kaolin	1332-58-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Iron oxide	1332-37-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Acrylonitrile-Butadiene Polymer	9003-18-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Acrylonitrile-1,3-Butadiene-Divinylbenzene Copolymer	9052-77-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4-Methylpentan-2-one	108-10-1	Experimental Photolysis		Photolytic half-life (in air)	2.28 days (t 1/2)	Other methods

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Salicylic acid	69-72-7	Experimental Bioconcentration		Log Kow	2.26	Other methods
4-Methylpentan-2-one	108-10-1	Experimental Bioconcentration		Log Kow	1.31	Other methods
Butanone	78-93-3	Experimental Bioconcentration		Log Kow	0.29	Other methods
Glycerol Esters of Rosin Acids	8050-31-5	Experimental Bioconcentration		Log Kow	<1.5	Other methods
Phthalic Acid, Di-C9-11-Branched Alkyl Esters, C10 Rich	68515-49-1	Experimental BCF-Carp	56 days	Bioaccumulation factor	<14.4	OECD 305E - Bioaccumulation flow-through fish test
Titanium dioxide	13463-67-7	Experimental BCF-Carp	42 days	Bioaccumulation factor	9.6	Other methods
Rosin	8050-09-7	Estimated BCF - Rainbow Tr	20 days	Bioaccumulation factor	129	Other methods
Zinc oxide	1314-13-2	Experimental BCF-Carp	56 days	Bioaccumulation factor	<217	OECD 305E - Bioaccumulation flow-through fish test
Kaolin	1332-58-7	Data not	N/A	N/A	N/A	N/A

		available or insufficient for classification				
Iron oxide	1332-37-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Acrylonitrile-Butadiene Polymer	9003-18-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Acrylonitrile-1,3-Butadiene-Divinylbenzene Copolymer	9052-77-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.4. Mobility in soil
Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

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

12.6. Other adverse effects

Material	CAS Nbr	Ozone Depletion Potential	Global Warming Potential
MIBK	108-10-1	0	

SECTION 13: Disposal considerations

13.1 Waste treatment methods
See Section 11.1 Information on toxicological effects

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

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 09* Waste adhesives and sealants containing organic solvents or other dangerous substances
20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

FS-9000-4840-6

ADR/RID: UN1133, ADHESIVES, LIMITED QUANTITY, 3., II , (E), ADR Classification Code: F1.
IMDG-CODE: UN1133, ADHESIVES, 3., II , IMDG-Code segregation code: NONE, LIMITED QUANTITY, EMS:

FE,SD.
ICAO/IATA: UN1133, ADHESIVES, 3., II .

SECTION 15: Regulatory information

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

Carcinogenicity

Ingredient	CAS Nbr	Classification	Regulation
4-Methylpentan-2-one	108-10-1	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Global inventory status
Contact 3M for more 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.

15.2. Chemical Safety Assessment
A chemical safety assessment has been carried out for the relevant substances in this material by the registrant in accordance with regulation REGULATION (EC) No 1907/2006

SECTION 16: Other information

List of relevant H statements

EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:
Section 3: Composition/ Information of ingredients table information was added.
Section 3: Composition/ Information of ingredients table information was deleted.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.

Annex

1. Title	
Substance identification	Butanone; EC No. 201-159-0; CAS Nbr 78-93-3;

Exposure Scenario Name	Industrial Application of Coatings
Identified uses	PROC 05, ERC 04, SU 03 ; PROC 07, ERC 04, SU 03 ; PROC 08a, ERC 04, SU 03 ; PROC 08b, ERC 04, SU 03 ; PROC 10, ERC 04, SU 03 ;
Processes, tasks and activities covered	Application of product. Mixing operations (open systems). Transfer of substances/mixtures into small containers e.g. tubes , bottles or small reservoirs.
2. Operational conditions and risk management measures	
Operating Conditions	**Physical state:**Liquid. **General operating conditions:** Duration of exposure per day at workplace [for one worker]: 8 hours/day; **Task: PROC07**; Air exchange rate:: 10 - 15 ;
Risk management measures	Under the operational conditions described above the following risk management measures apply: **General risk management measures:** **Human health:** Goggles - Chemical resistant; **Environmental:** None needed; ; The following task-specific risk management measures apply in addition to those listed above: **Task: Transferring Material**; **Human Health**; Half-facepiece air-purifying respirator; **Task: PROC05**; **Human Health**; Local exhaust ventilation; **Task: PROC07**; **Human Health**; Half-facepiece air-purifying respirator; **Task: PROC10**; **Human Health**; Provide extract ventilation to points where emissions occur;
Waste management measures	No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions:
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

1. Title	
Substance identification	Butanone; EC No. 201-159-0; CAS Nbr 78-93-3;
Exposure Scenario Name	Industrial Packaging/Repackaging
Identified uses	PROC 08a, ERC 02, SU 03 ; PROC 08b, ERC 02, SU 03 ; PROC 09, ERC 02, SU 03 ;
Processes, tasks and activities covered	Transfer of substances/mixtures into small containers e.g. tubes , bottles or small reservoirs. Transfers with dedicated controls, including loading, filling, dumping, bagging. Transfers without dedicated controls, including loading, filling, dumping, bagging.

2. Operational conditions and risk management measures	
Operating Conditions	**Physical state:**Liquid. **General operating conditions:** Duration of exposure per day at workplace [for one worker]: 8 hours/day;
Risk management measures	Under the operational conditions described above the following risk management measures apply: **General risk management measures:** **Human health:** Goggles - Chemical resistant; Local exhaust ventilation; **Environmental:** None needed;
Waste management measures	No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions:
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

1. Title	
Substance identification	Butanone; EC No. 201-159-0; CAS Nbr 78-93-3;
Exposure Scenario Name	Professional Application of Coatings
Identified uses	PROC 05, ERC 08a, SU 22 ; PROC 05, ERC 08d, SU 22 ; PROC 08a, ERC 08a, SU 22 ; PROC 08a, ERC 08d, SU 22 ; PROC 08b, ERC 08a, SU 22 ; PROC 08b, ERC 08d, SU 22 ; PROC 10, ERC 08a, SU 22 ; PROC 10, ERC 08d, SU 22 ; PROC 11, ERC 08a, SU 22 ; PROC 11, ERC 08d, SU 22 ;
Processes, tasks and activities covered	Application of product. Mixing operations (open systems). Transfer of substances/mixtures into small containers e.g. tubes , bottles or small reservoirs.
2. Operational conditions and risk management measures	
Operating Conditions	**Physical state:**Liquid. **General operating conditions:** Duration of exposure per day at workplace [for one worker]: 8 hours/day; **Task: PROC11**; Duration of use: 4 hours/day;
Risk management measures	Under the operational conditions described above the following risk management measures apply: **General risk management measures:** **Human health:** Goggles - Chemical resistant; Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour); **Environmental:** None needed; ; The following task-specific risk management measures apply in addition to those listed above: **Task: Transferring Material**; **Human Health**; Half-facepiece air-purifying respirator;

	Task: PROC05; **Human Health**; Half-facepiece air-purifying respirator; **Task: PROC11**; **Human Health**; Half-facepiece air-purifying respirator;
Waste management measures	No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions:
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

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