



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 Scotchcode Marking Pens and Kits

Product identification numbers

80-6105-9388-3 80-6105-9391-7 80-6105-9393-3 80-6114-2809-7 80-6114-4343-5

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

Identified uses

Marker pen for wire identification

1.3. Details of the supplier of the substance or mixture

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

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

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Indication of danger

Flammable; R10

Irritant; Xi; R41

For full text of R phrases, see Section 16.

2.2. Label elements

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

3M Scotchcode Marking Pens and Kits

Symbol(s)



Irritant

Contains:

Butan-1-ol; Propan-1-ol

Risk phrases

R10 Flammable.
R41 Risk of serious damage to eyes.

Safety phrases

S39A Wear eye protection.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Plastic Pen Assembly	Mixture		80 - 90	
Propan-1-ol	71-23-8	EINECS 200-746-9	5.5 - 6.5	F:R11; Xi:R41; R67 (EU) Flam. Liq. 2, H225; Eye Dam. 1, H318; STOT SE 3, H336 (CLP)
Butan-1-ol	71-36-3	EINECS 200-751-6	3 - 4	Xn:R22; Xi:R37-38-41; R10; R67 (EU) Flam. Liq. 3, H226; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H336; STOT SE 3, H335 (CLP)
4-Hydroxy-4-methylpentan-2-one	123-42-2	EINECS 204-626-7	2.5 - 3.5	Xi:R36 (EU) Eye Irrit. 2, H319 (CLP)
Dyes	Mixture		2 - 3	

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

Please refer to section 15 for the 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

Eye contact

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

Skin contact

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Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Inhalation

Remove person to fresh air. If you feel unwell, 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 carbon dioxide or dry chemical extinguisher for extinction.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

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

5.3. Advice for fire-fighters

No unusual fire or explosion hazards are anticipated.

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. 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.

6.3. Methods and material for containment and cleaning up

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

Avoid eye contact. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Ground/bond container and

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receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Use explosion-proof electrical/ventilating/lighting/equipment. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. 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

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
4-Hydroxy-4-methylpentan-2-one	123-42-2	Health and Safety Comm. (UK)	TWA: 241 mg/m ³ (50 ppm); STEL: 362 mg/m ³ (75 ppm)	
Propan-1-ol	71-23-8	Health and Safety Comm. (UK)	TWA:500 mg/m ³ (200 ppm);STEL:625 mg/m ³ (250 ppm)	Skin Notation
Butan-1-ol	71-36-3	Health and Safety Comm. (UK)	STEL:154 mg/m ³ (50 ppm)	Skin Notation

Health and Safety Comm. (UK) : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

ppm: parts per million

mg/m³: milligrams per cubic metre

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Not applicable.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

None required.

Skin/hand protection

Skin protection is not required.

Respiratory protection

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid.
Specific Physical Form:	Felt tip pen
Appearance/Odour	Black or red ink with solvent odour
pH	<i>No data available.</i>
Boiling point/boiling range	± 121 °C [<i>Details:(n-propanol)</i>]
Melting point	<i>No data available.</i>
Flammability (solid, gas)	Flammable liquid: Category 3.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	28.9 °C [<i>Test Method:Closed Cup</i>]
Autoignition temperature	<i>No data available.</i>
Flammable Limits(LEL)	± 2.7 % volume [<i>Details:In air by volume</i>]
Flammable Limits(UEL)	± 11.8 % volume [<i>Details:In air by volume</i>]
Vapour pressure	± 1,151.4 Pa [<i>Details:(20C (n-propanol))</i>]
Relative density	± 0.95 Units not available or not applicable. [<i>Ref Std:WATER=1</i>] [<i>Details:(n-propanol)</i>]
Water solubility	Appreciable
Partition coefficient: n-octanol/water	<i>No data available.</i>
Evaporation rate	1.3
Vapour density	<i>No data available.</i>
Viscosity	<i>Not applicable.</i>
Density	<i>No data available.</i>

9.2. Other information

Volatile organic compounds (VOC)	≥55 % weight
VOC less H ₂ O & exempt solvents	≥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

None known.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition

products may occur as a result of oxidation, heating, or reaction with another material.

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:

Eye contact

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

Skin contact

Contact with the skin during product use is not expected to result in significant irritation.

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion

May be harmful if swallowed.

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

Toxicological Data

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No test data available; calculated ATE2,679 mg/kg
Propan-1-ol	Dermal	Rabbit	LD50 4,000 mg/kg
Propan-1-ol	Inhalation-Vapor	Rat	LC50 estimated to be 20 - 50 mg/l
Propan-1-ol	Ingestion	Rat	LD50 1,870 mg/kg
Butan-1-ol	Dermal	Rabbit	LD50 3,402 mg/kg
Butan-1-ol	Inhalation-Vapor (4 hours)	Rat	LC50 24 mg/l
Butan-1-ol	Ingestion	Rat	LD50 2,290 mg/kg
4-Hydroxy-4-methylpentan-2-one	Dermal	Rabbit	LD50 13,645 mg/kg
4-Hydroxy-4-methylpentan-2-one	Ingestion	Rat	LD50 4,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Propan-1-ol		Minimal irritation
Butan-1-ol	Rabbit	Mild irritant
4-Hydroxy-4-methylpentan-2-one		Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
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Propan-1-ol		Severe irritant
Butan-1-ol	Rabbit	Severe irritant
4-Hydroxy-4-methylpentan-2-one		Severe irritant

Skin Sensitisation

Name	Species	Value
Propan-1-ol		Not sensitizing
Butan-1-ol	Human	Not sensitizing
4-Hydroxy-4-methylpentan-2-one		No data available

Respiratory Sensitisation

Name	Species	Value
Propan-1-ol		No data available
Butan-1-ol		No data available
4-Hydroxy-4-methylpentan-2-one		No data available

Germ Cell Mutagenicity

Name	Route	Value
Propan-1-ol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Butan-1-ol	In vivo	Not mutagenic
Butan-1-ol	In Vitro	Some positive data exist, but the data are not sufficient for classification
4-Hydroxy-4-methylpentan-2-one	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Propan-1-ol	Ingestion		Some positive data exist, but the data are not sufficient for classification
Butan-1-ol			No data available
4-Hydroxy-4-methylpentan-2-one			No data available

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

Name	Route	Value	Species	Test result	Exposure Duration
Propan-1-ol	Inhalation	Some positive reproductive/developmental data exist, but the data are not sufficient for classification		NOAEL 8.6 mg/l	
Butan-1-ol	Ingestion	Not toxic to female reproduction	Rat	NOAEL 5,000 mg/kg/day	prematuring & during gestation
Butan-1-ol	Ingestion	Not toxic to male reproduction	Rat	NOAEL 500 mg/kg/day	4 days
Butan-1-ol	Inhalation	Not toxic to male reproduction	Rat	NOAEL 18 mg/l	6 weeks
Butan-1-ol	Inhalation	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 10.6 mg/l	during gestation
4-Hydroxy-4-methylpentan-2-one	Ingestion	Some positive reproductive/developmental data exist, but the data are not		NOEL 300 mg/kg/day	

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		sufficient for classification			
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Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Propan-1-ol	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL 5 mg/l	
Propan-1-ol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Butan-1-ol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Butan-1-ol	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
Butan-1-ol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
4-Hydroxy-4-methylpentan-2-one	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL NA	
4-Hydroxy-4-methylpentan-2-one	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
4-Hydroxy-4-methylpentan-2-one	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL NA	
4-Hydroxy-4-methylpentan-2-one	Ingestion	blood liver	Some positive data exist, but the data are not sufficient for classification		LOAEL 1,882 mg/kg	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Propan-1-ol	Ingestion	hematopoietic system liver	Some positive data exist, but the data are not sufficient for classification		LOEL 70 mg/kg/day	
Butan-1-ol	Inhalation	blood	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.3 mg/l	3 months
Butan-1-ol	Inhalation	auditory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

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Butan-1-ol	Inhalation	liver kidney and/or bladder respiratory system	Some positive data exist, but the data are not sufficient for classification	Guinea pig	NOAEL Not available	3 months
Butan-1-ol	Inhalation	nervous system	All data are negative	Rat	NOAEL 9.09 mg/l	13 weeks
Butan-1-ol	Ingestion	blood	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	13 weeks
4-Hydroxy-4-methylpentan-2-one	Inhalation	blood kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		NOEL 1.035 mg/l	
4-Hydroxy-4-methylpentan-2-one	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification		NOEL 0.232 mg/l	
4-Hydroxy-4-methylpentan-2-one	Ingestion	endocrine system blood liver	Some positive data exist, but the data are not sufficient for classification		NOEL 300 mg/kg/day	
4-Hydroxy-4-methylpentan-2-one	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		NOEL 100 mg/kg/day	

Aspiration Hazard

Name	Value
Propan-1-ol	Not an aspiration hazard
Butan-1-ol	Some positive data exist, but the data are not sufficient for classification
4-Hydroxy-4-methylpentan-2-one	Not an aspiration hazard

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

SECTION 12: Ecological information

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

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No product test data available.
No component test data available.

12.2. Persistence and degradability

No test data available.

12.3 : Bioaccumulative potential

No test data available.

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

Dispose of contents/ container in accordance with the local/regional/national/international regulations

Dispose of waste product in a permitted industrial waste 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)

080312* Waste ink containing dangerous substances

SECTION 14: Transportation information

80-6105-9388-3, 80-6105-9391-7, 80-6105-9393-3, 80-6114-2809-7,
80-6114-4343-5

ADR/RID: UN3175, NOT RESTRICTED - SPECIAL PROVISION 216 FULFILLED, (--).

IMDG-CODE: UN3175, NOT RESTRICTED, AS PER SPECIAL PROVISION 216, LIMITED QUANTITY, EMS: --.

ICAO/IATA: NOT RESTRICTED, AS PER SPECIAL PROVISION A46, information required for air way bill.

SECTION 15: Regulatory information

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

Global inventory status

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Contact 3M for more 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

List of relevant H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

List of relevant R-phrases

R10	Flammable.
R11	Highly flammable.
R22	Harmful if swallowed.
R36	Irritating to eyes.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R67	Vapours may cause drowsiness and dizziness.

Revision information:

Revision Changes:

Section 1: Product identification numbers was modified.

Section 2: Indication of danger information was modified.

Section 1: Initial issue message was modified.

Section 7: Conditions safe storage was modified.

Section 13: Standard Phrase Category Waste GHS was modified.

Section 2: R phrase reference was added.

Label: Graphic was added.

Label: Graphic was added.

Label: Graphic Text was added.

Section 2: Symbol was deleted.

Section 2: Symbols heading 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