

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 SF100 Cyanoacrylate Adhesive

Product Identification Numbers GS-2000-4384-1

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

Identified uses

Structural strength instant 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 000E Mail:tox.uk@mmm.comWebsite: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:

Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319 Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315 Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335

For full text of H phrases, see Section 16.

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

Indication of danger Irritant; Xi; R36/37/38

For full text of R phrases, see Section 16.

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

SIGNAL WORD WARNING.

Symbols: GHS07 (Exclamation mark) |

Pictograms



Ingredient	
Ethyl 2-cyanoacrylate	

HAZARD STATEMENTS:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.

PRECAUTIONARY STATEMENTS

Prevention: P261A	Avoid breathing vapours.
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.

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements: EUH202

Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

CAS Nbr

7085-85-0

% by Wt

90 - 95

Supplemental Precautionary Statements:

Avoid eye and skin contact. If eyelids are bonded, do not force open. In case of skin bonding, quickly soak in warm water and avoid excessive force to free bonded area.

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

Symbol(s)



Contains:

No ingredients are assigned to the label.

Risk phrases R36/37/38	Irritating to eyes, respiratory system and skin.
Safety phrases S2 S24/25 S26 S2	Keep out of the reach of children. Avoid contact with the skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Keep out of the reach of children.

Special provisions concerning the labelling of certain substances

CYANOACRYLATE, DANGER: Bonds skin and eyes in seconds. If eyelids are bonded, do not force open. In case of skin bonding, quickly soak in warm water and avoid excessive force to free bonded area.

2.3. Other hazards

May bond tissue rapidly.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Ethyl 2-cyanoacrylate	7085-85-0	EINECS 230-	90 - 95	Xi:R36-37-38 (EU)
		391-5		
				Skin Irrit. 2, H315; Eye Irrit. 2,
				H319; STOT SE 3, H335 (CLP)
Poly(methyl methacrylate)	9011-14-7		5 - 10	
Hydroquinone	123-31-9	EINECS 204-	< 0.1	Carc.Cat.3:R40;
		617-8		Muta.Cat.3:R68; Xn:R22;
				Xi:R41; N:R50; R43 (EU)
				Acute Tox. 4, H302; Eye Dam.
				1, H318; Skin Sens. 1B, H317;
				Muta. 2, H341; Carc. 2, H351;
				Aquatic Acute 1, H400,M=10
				(CLP)
				Aquatic Chronic 1, H410,M=1
				(Self Classified)

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

Inhalation

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

Skin contact

For skin bonds: Quickly soak in warm water and avoid use of excessive force to free bonded area. If unable to free bonded

area, or if lips or mouth are bonded, get medical attention. If irritation persists, get medical attention.

Eye contact

Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention. DO NOT force eyelids open.

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

<u>Substance</u>	<u>Condition</u>
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 vapors 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 closed 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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing 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. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Protect from sunlight. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from amines.

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
Hydroquinone	123-31-9	UK HSC
Ethyl 2-cyanoacrylate	7085-85-0	UK HSC
UK HSC : UK Health and Safety Commiss	ion	
TWA: Time-Weighted-Average		
STEL: Short Term Exposure Limit		
CEIL: Ceiling		

Limit type 7 TWA: 0.5 mg/m³ STEL: 1.5 mg/m³ (0.3 ppm)

Additional comments

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

Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining. 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: 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. Do not wear cotton gloves.

Gloves made from the following material(s) are recommended:

Material	Thickness (mm)	Breakthrough Time
Fluoroelastomer	No data available	No data available
Polyethylene	No data available	No data available

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Appearance/Odour	Clear liquid, with a sharp, pungent odour.
Odour threshold	No data available.
рН	Not applicable.
Boiling point/boiling range	>=100 °C
Melting point	Not applicable.
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	>=85 °C [Test Method:Closed Cup]
Autoignition temperature	No data available.
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Vapour pressure	<=26.7 Pa [@ 23.9 °C]
Relative density	1.06 [<i>Ref Std</i> :WATER=1]
Water solubility	Nil
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Evaporation rate	Negligible
Vapour density	>=3.0 [<i>Ref Std</i> :AIR=1]
Decomposition temperature	No data available.
Viscosity	0.08 - 0.12 Pa-s [@ 23 °C]
Density	1.06 g/ml
9.2. Other information	
Volatile organic compounds (VOC)	No data available.
VOC less H2O & exempt solvents	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation may occur. May occur in large quantities only.

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

Strong oxidising agents. Water Strong bases. Amines. Alcohols.

Material polymerizes rapidly by contact with water, alcohol, amines and alkalis.

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

Condition

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

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Vapours released during curing may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact

Bonds skin rapidly. Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness.

Eye contact

Bonds eyelids rapidly. Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision. Vapours released during curing may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion

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

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
Ethyl 2-cyanoacrylate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Ethyl 2-cyanoacrylate	Ingestion	Rat	LD50 > 5,000 mg/kg
Poly(methyl methacrylate)	Dermal		LD50 estimated to be $> 5,000 \text{ mg/kg}$
Poly(methyl methacrylate)	Ingestion	Rat	LD50 > 5,000 mg/kg
Hydroquinone	Dermal	Rat	LD50 > 4,800 mg/kg
Hydroquinone	Ingestion	Rat	LD50 302 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Ethyl 2-cyanoacrylate	Rabbit	Mild irritant
Poly(methyl methacrylate)	Rabbit	No significant irritation
Hydroquinone	Human	Minimal irritation
	and	
	animal	

Serious Eye Damage/Irritation

Name	Species	Value
Ethyl 2-cyanoacrylate	Rabbit	Severe irritant
Poly(methyl methacrylate)	Rabbit	Mild irritant
Hydroquinone	Professio	Severe irritant
	nal	
	judgemen	
	t	

Skin Sensitisation

Species	Value
Human	Some positive data exist, but the data are not sufficient for classification
Guinea	Sensitising
	Human

Respiratory Sensitisation

Name	Species	Value
Ethyl 2-cyanoacrylate	Human	Some positive data exist, but the data are not sufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
Ethyl 2-cyanoacrylate	In Vitro	Not mutagenic
Hydroquinone	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Hydroquinone	In vivo	Some positive data exist, but the data are not
		sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Hydroquinone	Dermal	Mouse	Not carcinogenic
Hydroquinone	Ingestion	Multiple	Some positive data exist, but the data are not

3M Scotch-Weld SF100	Cyanoacrylate	Adhesive
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spec	animal sufficient for classification species
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Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Hydroquinone	Ingestion	Not toxic to female reproduction	Rat	NOAEL 150 mg/kg/day	2 generation
Hydroquinone	Ingestion	Not toxic to male reproduction	Rat	NOAEL 150 mg/kg/day	2 generation
Hydroquinone	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 100 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
Ethyl 2-cyanoacrylate	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure
Hydroquinone	Ingestion	nervous system	May cause damage to organs	Rat	NOAEL Not available	not applicable
Hydroquinone	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 400 mg/kg	not applicable

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Hydroquinone	Ingestion	blood	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	40 days
Hydroquinone	Ingestion	bone marrow liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	9 weeks
Hydroquinone	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 50 mg/kg/day	15 months
Hydroquinone	Ocular	eyes	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

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	Туре	Exposure	Test endpoint	Test result
Hydroquinone	123-31-9	Water flea	Experimental	48 hours	EC50	0.061 mg/l
Hydroquinone	123-31-9	Green Algae	Experimental	72 hours	EC50	0.053 mg/l
Hydroquinone	123-31-9	Rainbow trout	Experimental	96 hours	LC50	0.044 mg/l
Hydroquinone	123-31-9	Green Algae	Experimental	72 hours	NOEC	0.0015 mg/l
Hydroquinone	123-31-9	Water flea	Experimental	21 days	NOEC	0.0029 mg/l
Ethyl 2- cyanoacrylate	7085-85-0		Data not available or insufficient for classification			
Poly(methyl methacrylate)	9011-14-7		Data not available or insufficient for classification			

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Ethyl 2-	7085-85-0	Estimated		Photolytic half-	7.1 days (t 1/2)	Other methods
cyanoacrylate		Photolysis		life (in air)		
Poly(methyl methacrylate)	9011-14-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydroquinone	123-31-9	Experimental Biodegradation	14 days	BOD	70 % weight	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Ethyl 2-	7085-85-0	Data not	N/A	N/A	N/A	N/A
cyanoacrylate		available or				
		insufficient for				
		classification				
Poly(methyl	9011-14-7	Data not	N/A	N/A	N/A	N/A
methacrylate)		available or				
		insufficient for				
		classification				
Hydroquinone	123-31-9	Experimental		Log Kow	0.59	Other methods
		Bioconcentrati				
		on				

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

Dispose of completely cured (or polymerised) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product 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 that has been completely cured or polymerised may be placed in a landfill properly designed for industrial waste. 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: Transportation information

GS-2000-4384-1

ADR/RID: NOT RESTRICTED FOR ROAD (ADR/RID), (--).

IMDG-CODE: NOT RESTRICTED FOR TRANSPORTATION FOR IMDG/GGVSEE, IMDG-Code segregation code: NONE.

ICAO/IATA: UN3334, AVIATION REGULATED LIQUID, N.O.S., (CYANOCRYLATE ESTER), 9., III.

SECTION 15: Regulatory information

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

Carcinogenicity			
Ingredient	CAS Nbr	Classification	Regulation
Hydroquinone	123-31-9	Carc. 2	Regulation (EC) No.
			1272/2008, Table 3.1
Hydroquinone	123-31-9	Carc.Cat.3	Regulation (EC) No.
			1272/2008, Table 3.2
Hydroquinone	123-31-9	Gr. 3: Not classifiable	International Agency
			for Research on Cancer
Poly(methyl methacrylate)	9011-14-7	Gr. 3: Not classifiable	International Agency
			for Research on Cancer

Global inventory status

Contact 3M for more information.

15.2. Chemical Safety Assessment Not applicable

1 or applicable

SECTION 16: Other information

List of relevant H statements

H302 Harmful if sv	vallowed.
H315 Causes skin i	rritation.
H317 May cause ar	n allergic skin reaction.
H318 Causes seriou	is eye damage.
H319 Causes seriou	us eye irritation.
	spiratory irritation.
H341 Suspected of	causing genetic defects.
H351 Suspected of	causing cancer.

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

List of relevant R-phrases

R22	Harmful if swallowed.
R36	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R40	Limited evidence of a carcinogenic effect.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.
R50	Very toxic to aquatic organisms.
R68	Possible risks of irreversible effects.

Revision information:

Revision Changes:

Section 1: Product identification numbers information was modified. Section 11: Health Effects - Skin information information was modified. Section 6: Accidental release personal information information was modified.

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