

# **Safety Data Sheet**

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

# **SECTION 1: Identification**

#### 1.1. Product identifier

3M(TM) Scotch-Weld(TM) Surface Insensitive Instant Adhesive SI100, Clear

#### **Product Identification Numbers**

62-6176-0360-0 62-6176-0363-4 62-6176-0365-9 62-6176-3860-6 UU-0015-0411-5

UU-0015-0412-3 UU-0015-0413-1 UU-0015-1105-2 UU-0015-1123-5

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

#### Recommended use

Adhesive

## 1.3. Supplier's details

Address: 3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100

**Telephone:** 080-39143000, contact Product EHS team

E Mail: productehs.in@mmm.com
Website: http://solutions.3mindia.co.in

## 1.4. Emergency telephone number

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

# **SECTION 2: Hazard identification**

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

### 2.1. Classification of the substance or mixture

Flammable Liquid: Category 4.

Serious Eye Damage/Irritation: Category 2A

Skin Corrosion/Irritation: Category 3.

Specific Target Organ Toxicity (single exposure): Category 3.

Acute Aquatic Toxicity: Category 3.

#### 2.2. Label elements

Signal Word

### WARNING!

### **Symbols**

Exclamation mark |

### **Pictograms**



### **HAZARD STATEMENTS:**

H227 Combustible liquid.

H319 Causes serious eye irritation.
H316 Causes mild skin irritation.
H335 May cause respiratory irritation.

H402 Harmful to aquatic life.

### PRECAUTIONARY STATEMENTS

**Prevention:** 

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

**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.

P370 + P378G In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry

chemical or carbon dioxide to extinguish.

### 2.3. Other hazards

May bond tissue rapidly. 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. Contact through clothing may cause thermal burns.

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

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Ethyl 2-cyanoacrylate	7085-85-0	90 - 95
Non-Hazardous Resin (NJTS Reg. No. 04499600-7084)	Trade Secret	5 - 10
Hydroquinone	123-31-9	< 0.06

# **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.

#### Eve 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. Suitable 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**

<b>Substance</b>	<b>Condition</b>
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Hydrogen cyanide.	During combustion.
Oxides of nitrogen.	During combustion.

#### 5.3. Special protective actions 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 vapors, 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. 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.

# **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

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 cool. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from amines.

# **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
Hydroquinone	123-31-9	ACGIH	'' ' ' ' ' ' ' '	A3: Confirmed animal carcin., Dermal Sensitizer
Ethyl 2-cyanoacrylate	7085-85-0	ACGIH	TWA:0.2 ppm	

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

## 8.2. Exposure controls

## 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.

## 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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

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

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 thresholdNo data available.pHNot applicable.Melting point/Freezing point: NANot applicable.

Boiling point/Initial boiling point/Boiling range 150 °C

Flash point 85 °C [Test Method:Closed Cup]

Evaporation rate

Flammability (solid, gas)

Flammable Limits(LEL)

Flammable Limits(UEL)

Vapour pressure

Vapour density

No data available.

**Density** 1.06 g/ml

**Relative density** 1.06 [*Ref Std*:WATER=1]

Water solubility Nil

Solubility- non-waterNo data available.Partition coefficient: n-octanol/waterNo data available.Autoignition temperatureNo data available.Decomposition temperatureNo data available.Viscosity70 - 90 mPa-s [@, 23 °C ]

Volatile organic compounds (VOC) <=0.6 %

Percent volatile 90 - 95 % weight [Test Method: Estimated]

VOC less H2O & exempt solvents <=6 g/l

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

### 10.4 Conditions to avoid

Heat.

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### 10.5 Incompatible materials

Strong oxidising agents.

Water

Strong bases.

Amines.

Alcohols.

## 10.6 Hazardous decomposition products

Substance

None known.

Condition

Refer to section 5.2 for hazardous decomposition products during combustion.

# **SECTION 11: Toxicological information**

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

### 11.1 Information on Toxicological effects

### Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

#### Inhalation

Respiratory tract irritation: 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 localized redness, swelling, itching, and dryness. Contact through clothing may cause thermal burns.

#### 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.

#### 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
Non-Hazardous Resin (NJTS Reg. No. 04499600-7084)	Dermal		LD50 estimated to be > 5,000 mg/kg
Non-Hazardous Resin (NJTS Reg. No. 04499600-7084)	Ingestion	Rat	LD50 > 5,000 mg/kg
Hydroquinone	Dermal	Rat	LD50 > 4,800 mg/kg
Hydroquinone	Ingestion	Rat	LD50 302 mg/kg

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# ATE = acute toxicity estimate

## Skin Corrosion/Irritation

Name	Species	Value
Ethyl 2-cyanoacrylate	Rabbit	Mild irritant
Non-Hazardous Resin (NJTS Reg. No. 04499600-7084)	Rabbit	No significant irritation
Hydroquinone	Human	Minimal irritation
	and	
	animal	

Serious Eye Damage/Irritation

Name	Species	Value
Ethyl 2-cyanoacrylate	Rabbit	Severe irritant
Non-Hazardous Resin (NJTS Reg. No. 04499600-7084)	Rabbit	Mild irritant
Hydroquinone	Human	Corrosive

## **Skin Sensitisation**

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

**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

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

# 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

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# 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	occupational
					available	exposure
Hydroquinone	Ingestion	nervous system	May cause damage to organs	Rat	NOAEL Not	not applicable
		-			available	
Hydroquinone	Ingestion	kidney and/or	Some positive data exist, but the	Rat	NOAEL 400	not applicable
	_	bladder	data are not sufficient for		mg/kg	
			classification			

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 are currently available or the data are not sufficient for classification.

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

# **SECTION 12: Ecological information**

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

# 12.1. Toxicity

### Acute aquatic hazard:

GHS Acute 3: Harmful to aquatic life.

## Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Nbr	Organism	Туре	Exposure	Test endpoint	Test result
Ethyl 2-	7085-85-0		Data not			
cyanoacrylate			available or			
			insufficient for			
			classification			
Hydroquinone	123-31-9	Water flea	Experimental	48 hours	EC50	0.061 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	EC50	0.053 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
Non-Hazardous	Trade Secret		Data not			
Resin (NJTS			available or			
Reg. No.			insufficient for			
04499600-			classification			
7084)						

## 12.2. Persistence and degradability

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				
Non-Hazardous	Trade Secret	Data not	N/A	N/A	N/A	N/A
Resin (NJTS		available or				
Reg. No.		insufficient for				
04499600-		classification				
7084)						
Hydroquinone	123-31-9	Experimental	14 days	BOD	70 % weight	OECD 301C - MITI
		Biodegradation				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				
Non-Hazardous	Trade Secret	Data not	N/A	N/A	N/A	N/A
Resin (NJTS		available or				
Reg. No.		insufficient for				
04499600-		classification				
7084)						
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 Other Adverse effects

No information available.

# **SECTION 13: Disposal considerations**

## 13.1. Disposal methods

See Section 11.1 Information on toxicological effects

Incinerate uncured product in a permitted waste incineration facility. Dispose of completely cured (or polymerised) material in a permitted industrial waste 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: Transport Information**

Not hazardous for transportation.

Air Transport (IATA)Regulations

**UN No** Not applicable

Proper Shipping Name Not applicable Hazard Classs/Division Not applicable Subsidiary Risk Not applicable

**Subsidiary Risk** Not applicable **Packing Group:** Not applicable

# **SECTION 15: Regulatory information**

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

### Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional 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. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory.

## Applicable Environmental, Health and Safety Regulations

Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 Hazardous Waste(Management, Handling & Transboundary) Rules, 2008

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

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

Product is classified as flammable liquid

# **SECTION 16: Other information**

### **NFPA Hazard Classification**

Health: 2 Flammability: 2 Instability: 1 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address

the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

#### **Revision information:**

No revision information

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