

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.

IDENTIFICATION

1.1. Product identifier

3M[™] Scotch-Weld[™] Epoxy Adhesive DP190 Translucent

Product Identification Numbers

62-3286-1430-0 62-3286-1431-8 62-3286-1435-9 62-3286-1436-7 62-3286-3530-5

62-3286-3830-9

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

Recommended use

Structural adhesive.

1.3. Supplier's details

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

Telephone: 080-45543000, contact Product EHS team

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

1.4. Emergency telephone number

080-45543000 (Contact hours: 8:00 AM to 5:00 PM)

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the MSDSs for components of this product are:

05-6839-4, 05-6837-8

TRANSPORT INFORMATION

Air Transport (IATA)Regulations

UN No Not applicable

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

Packing Group: Not applicable

Page: 1 of 2

3MTM Scotch-WeldTM Epoxy Adhesive DP190 Translucent

Marine Transport (IMDG) UN No Not applicable

Proper Shipping Name Not applicable Hazard Classs/Division Not applicable Subsidiary Pick. Not applicable

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

Environmental Hazards: Not applicable

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



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[™] Scotch-Weld[™] Epoxy Adhesive DP190 Translucent, Part B

1.2. Recommended use and restrictions on use

Recommended use

Part B of a 2-Component Epoxy Adhesive , Structural adhesive.

1.3. Supplier's details

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

Telephone: 080-45543000, contact Product EHS team

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

1.4. Emergency telephone number

080-45543000 (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

Serious Eye Damage/Irritation: Category 2B.

Skin Corrosion/Irritation: Category 3.

Skin Sensitizer: Category 1.

Acute Aquatic Toxicity: Category 2. Chronic Aquatic Toxicity: Category 2.

2.2. Label elements

Signal Word

WARNING!

Symbols

Exclamation mark |Environment |

Pictograms





HAZARD STATEMENTS:

H320 Causes eye irritation. H316 Causes mild skin irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P280E Wear protective gloves.

P273 Avoid release to the environment.

Response:

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.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Epoxy Resin 1	25068-38-6	60 - 70
Epoxy Resin 2	30583-72-3	30 - 40

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

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, 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

No critical symptoms or effects. 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 ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

bustion.
bustion.
bustion.
bustion.
bustion.
)

5.3. Special protective actions for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. 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. 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. 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 in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities

Store away from acids.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No occupational exposure 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

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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended: Polymer laminate

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.	
Specific Physical Form:	Viscous Liquid	
Color	Colorless	
Odor	Slight Epoxy	
Odour threshold	No data available.	
pH	Not applicable.	
Melting point/Freezing point: NA	Not applicable.	
Boiling point/Initial boiling point/Boiling range	>=98.9 °C	
Flash point	>=93.3 °C [<i>Test Method:</i> Pensky-Martens Closed Cup]	
Evaporation rate	Negligible	
Flammability (solid, gas)	Not applicable.	
Flammable Limits(LEL)	No data available.	
Flammable Limits(UEL)	No data available.	
Vapor Density and/or Relative Vapor Density	No data available.	
Density	1.17 g/ml [@ 20 °C]	
Relative density	1.17 [Ref Std:WATER=1]	

Water solubility	Nil
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Autoignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity/Kinematic Viscosity	2,000 - 8,000 mPa-s [@ 20 °C] [<i>Test Method</i> :Brookfield]
Volatile organic compounds (VOC)	
Percent volatile	
VOC less H2O & exempt solvents	< 5 g/l [Test Method:calculated SCAQMD rule 443.1]
	[Details: when used as intended with Part A]
VOC less H2O & exempt solvents	0 g/l [Test Method:calculated SCAQMD rule 443.1] [Details:as
	supplied]
VOC less H2O & exempt solvents	< 0.5 % [Test Method:calculated SCAQMD rule 443.1]
	[Details: when used as intended with Part A]
Molecular weight	No data available.

Nanoparticles

This material does not contain nanoparticles.

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 will not occur.

10.4 Conditions to avoid

Heat is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature exothermic reaction with production of intense heat and smoke.

10.5 Incompatible materials

Strong acids.

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

No health effects are expected.

Skin contact

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eve contact

Moderate 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
Epoxy Resin 1	Dermal	Rat	LD50 > 1,600 mg/kg
Epoxy Resin 1	Ingestion	Rat	LD50 > 1,000 mg/kg
Epoxy Resin 2	Dermal	Rat	LD50 > 2,000 mg/kg
Epoxy Resin 2	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Epoxy Resin 1	Rabbit	Mild irritant
Epoxy Resin 2	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Epoxy Resin 1	Rabbit	Moderate irritant
Epoxy Resin 2	Rabbit	Mild irritant

Sensitization:

Skin Sensitisation

Skiii Sensitisation		
Name	Species	Value
Epoxy Resin 1	Human	Sensitising
	and animal	
Epoxy Resin 2	Mouse	Sensitising

Respiratory Sensitisation

Name	Species	Value
Epoxy Resin 1	Human	Not classified

Germ Cell Mutagenicity

Name Route	te Value
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Epoxy Resin 1	In vivo	Not mutagenic
Epoxy Resin 1	In Vitro	Some positive data exist, but the data are not sufficient for classification
Epoxy Resin 2	In vivo	Not mutagenic
Epoxy Resin 2	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Epoxy Resin 1	Dermal	Mouse	Some positive data exist, but the data are not
• •			sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Epoxy Resin 1	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
Epoxy Resin 1	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
Epoxy Resin 1	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
Epoxy Resin 1	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
Epoxy Resin 2	Ingestion	Not classified for development	Rat	NOAEL 300 mg/kg/day	during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

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

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Epoxy Resin 1	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
Epoxy Resin 1	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Epoxy Resin 1	Ingestion	auditory system heart endocrine system hematopoietic system liver eyes kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
Epoxy Resin 2	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 100 mg/kg/day	90 days
Epoxy Resin 2	Ingestion	heart endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system liver immune system nervous system vascular system skin muscles eyes	Not classified	Rat	NOAEL 600 mg/kg/day	90 days

1	
respiratory system	

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 2: Toxic to aquatic life.

Chronic aquatic hazard:

GHS Chronic 2: Toxic to aquatic life with long lasting effects.

No product test data available.

Material	CAS Nbr	Organism	Туре	Exposure	Test endpoint	Test result
Epoxy Resin 1	25068-38-6	Activated sludge	Estimated	3 hours	IC50	>100 mg/l
Epoxy Resin 1	25068-38-6	Green Algae	Estimated	72 hours	EC50	>11 mg/l
Epoxy Resin 1	25068-38-6	Rainbow trout	Estimated	96 hours	LC50	2 mg/l
Epoxy Resin 1	25068-38-6	Water flea	Estimated	48 hours	EC50	1.8 mg/l
Epoxy Resin 1	25068-38-6	Green Algae	Estimated	72 hours	NOEC	4.2 mg/l
Epoxy Resin 1	25068-38-6	Water flea	Estimated	21 days	NOEC	0.3 mg/l
Epoxy Resin 2	30583-72-3	Activated sludge	Experimental	3 hours	NOEC	1,000 mg/l
Epoxy Resin 2	30583-72-3	Green algae	Experimental	72 hours	EC50	>100 mg/l
Epoxy Resin 2	30583-72-3	Rainbow trout	Experimental	96 hours	LC50	11.5 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Epoxy Resin 1	25068-38-6	Estimated		Hydrolytic	117 hours (t	Non-standard method
		Hydrolysis		half-life	1/2)	
Epoxy Resin 1	25068-38-6	Estimated	28 days	BOD	5 %BOD/COD	OECD 301F -
		Biodegradation	-			Manometric
						respirometry
Epoxy Resin 2	30583-72-3	Experimental	28 days	BOD	0.1 %	OECD 301D - Closed
		Biodegradation			BOD/ThBOD	bottle test

12.3: Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Epoxy Resin 1	25068-38-6	Estimated		Log Kow	3.242	Non-standard method

		Bioconcentrati			
		on			
Epoxy Resin 2	30583-72-3	Experimental	Log Kow	3.84	Non-standard method
		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

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

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. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. 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

Air Transport (IATA)Regulations

UN No UN3082

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin)

Hazard Classs/Division 9
Subsidiary Risk Not applicable

Packing Group: III

Marine Transport (IMDG)

UN No UN3082

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin)

Hazard Classs/Division 9 Subsidiary Risk Not applicable

Packing Group: III

Environmental Hazards: Marine Pollutant: Yes

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. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Applicable Environmental, Health and Safety Regulations

The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 Hazardous Waste(Management, Handling & Transboundary) Rules, 2008 Hazardous Chemicals (Classification, Packaging and Labelling Draft Rules), 2011

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
None.

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:

The product is classified as Non-Hazardous as per MSIHC Rules, 1989.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 1 Instability: 0 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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Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3M(TM) Scotch-Weld(TM) Epoxy Adhesive DP190 Translucent, Part A

1.2. Recommended use and restrictions on use

Recommended use

Structural adhesive.

1.3. Supplier's details

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

Telephone: 080-45543000, contact Product EHS team

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

1.4. Emergency telephone number

080-45543000 (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

Acute Toxicity (oral): Category 5. Skin Sensitizer: Category 1.

Reproductive Toxicity: Category 1B.

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

2.2. Label elements

Signal Word

DANGER!

Symbols

Exclamation mark | Health Hazard |

Pictograms



HAZARD STATEMENTS:

H303 May be harmful if swallowed.
 H317 May cause an allergic skin reaction.
 H336 May cause drowsiness or dizziness.
 H360 May damage fertility or the unborn child.

PRECAUTIONARY STATEMENTS

Prevention:

P201 Obtain special instructions before use.

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

P280E Wear protective gloves.

Response:

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P308 + 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.

2.3. Other hazards

Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines. All or part of the classification is based on toxicity test data.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Aliphatic Polymer Diamine	68911-25-1	70 - 90
4,7,10-Trioxatridecane-1,13-Diamine	4246-51-9	10 - 30
Calcium triflate	55120-75-7	1 - 5
Toluene	108-88-3	< 0.8

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

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

3M(TM) Scotch-Weld(TM) Epoxy Adhesive DP190 Translucent, Part A

If swallowed

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

No critical symptoms or effects. 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 ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Oxides of nitrogen.	During combustion.
Oxides of sulphur.	During combustion.
Toxic vapour, gas, particulate.	During combustion.

5.3. Special protective actions for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. 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. 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. 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 in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not handle until all safety precautions have been read and understood. 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. Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

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

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
Toluene	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human
				carcin, Ototoxicant

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

None required.

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: 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	L	quid.

Specific Physical Form:	Viscous Liquid
Color	Light Amber
Odor	Slight Amine
	No data available.
Odour threshold	
pH	No data available.
Melting point/Freezing point: NA	Not applicable.
Boiling point/Initial boiling point/Boiling range	>=98.9 °C
Flash point	>=93.3 °C [Test Method:Closed Cup]
Evaporation rate	No data available.
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Vapour pressure	<=186,158.4 Pa [@ 55 °C]
Vapor Density and/or Relative Vapor Density	No data available.
Density	1.03 g/ml [@ 20 °C]
Relative density	1.03 [<i>Ref Std</i> :WATER=1]
Water solubility	Nil
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Autoignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity/Kinematic Viscosity	7,000 - 15,000 mPa-s [@ 20 °C] [Test Method: Brookfield]
Volatile organic compounds (VOC)	
Percent volatile	
VOC less H2O & exempt solvents	< 5 g/l [Test Method:calculated SCAQMD rule 443.1]
•	[Details: when used as intended with Part B]
VOC less H2O & exempt solvents	< 0.5 % [Test Method:calculated SCAQMD rule 443.1]
*	[Details: when used as intended with Part B]
VOC less H2O & exempt solvents	< 10 g/l [Test Method:calculated SCAQMD rule 443.1]
*	[Details:as supplied]
Molecular weight	No data available.

Nanoparticles

This material does not contain nanoparticles.

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 will not occur.

10.4 Conditions to avoid

Heat is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature exothermic reaction with production of intense heat and smoke.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products **Substance**

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not 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. May cause additional health effects (see below).

Skin contact

Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eve contact

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

Ingestion

May be harmful if swallowed.

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

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.

Additional information:

Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines.

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	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
Aliphatic Polymer Diamine	Dermal	Rat	LD50 > 2,000 mg/kg
Aliphatic Polymer Diamine	Ingestion	Rat	LD50 > 2,000 mg/kg
4,7,10-Trioxatridecane-1,13-Diamine	Dermal	Rabbit	LD50 2,500 mg/kg
4,7,10-Trioxatridecane-1,13-Diamine	Ingestion	Rat	LD50 3,160 mg/kg
Calcium triflate	Dermal	Professio	LD50 estimated to be 2,000 - 5,000 mg/kg
		nal	
		judgeme	
		nt	
Calcium triflate	Ingestion	Rat	LD50 > 2,000 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-	Rat	LC50 30 mg/l
	Vapor (4		
	hours)		
Toluene	Ingestion	Rat	LD50 5,550 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

7.111 CV11 CV11 CV11 CV11 CV11 CV11 CV11						
Name	Species	Value				
Overall product	In vitro	No significant irritation				
Aliphatic Polymer Diamine	Rat	Irritant				
4,7,10-Trioxatridecane-1,13-Diamine	Rabbit	Corrosive				
Calcium triflate	Rabbit	Minimal irritation				
Toluene	Rabbit	Irritant				

Serious Eye Damage/Irritation

Name Name	Species	Value
Overall product	In vitro	No significant irritation
	data	
Aliphatic Polymer Diamine	In vitro	Severe irritant
	data	
4,7,10-Trioxatridecane-1,13-Diamine	similar	Corrosive
	health	
	hazards	
Calcium triflate	Rabbit	Corrosive
Toluene	Rabbit	Moderate irritant

Sensitization:

Skin Sensitisation

Name	Species	Value
Aliphatic Polymer Diamine	Guinea	Sensitising
	pig	
Calcium triflate	Guinea	Not classified
	pig	
Toluene	Guinea	Not classified
	pig	

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
Aliphatic Polymer Diamine	In Vitro	Not mutagenic
Calcium triflate	In Vitro	Not mutagenic
Toluene	In Vitro	Not mutagenic

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Toluene	In vivo	Not mutagenic
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Carcinogenicity

Name	Route	Species	Value
Toluene	Dermal	Mouse	Some positive data exist, but the data are not
			sufficient for classification
Toluene	Ingestion	Rat	Some positive data exist, but the data are not
	sufficient for classif		sufficient for classification
Toluene	Inhalation	Mouse	Some positive data exist, but the data are not
			sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Aliphatic Polymer Diamine	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Aliphatic Polymer Diamine	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	29 days
Aliphatic Polymer Diamine	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Aliphatic Polymer Diamine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	Irritation Positive	
Aliphatic Polymer Diamine	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	NOAEL Not available	
4,7,10-Trioxatridecane- 1,13-Diamine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Calcium triflate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

specific Target Organ Toxicity - repeated exposure								
Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration		
Aliphatic Polymer	Ingestion	heart skin	Not classified	Rat	NOAEL	29 days		
Diamine		endocrine system			1,000			

	•	1			•
	bone, teeth, nails, and/or hair hematopoietic system liver immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system				
Inhalation	auditory system eyes olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Inhalation	heart liver kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
Inhalation	hematopoietic system vascular system	Not classified	Human	NOAEL Not available	occupational exposure
Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Ingestion	liver kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks
	Inhalation Inhalation Inhalation Inhalation Inhalation Inhalation Inhalation Inhalation Ingestion Ingestion Ingestion Ingestion Ingestion	and/or hair hematopoietic system liver immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system Inhalation auditory system eyes olfactory system Inhalation nervous system Inhalation heart liver kidney and/or bladder Inhalation immune system Inhalation bone, teeth, nails, and/or hair Inhalation hematopoietic system vascular system Inhalation immune system Inhalation bones, teeth, nails, and/or hair Inhalation hematopoietic system vascular system Ingestion nervous system Ingestion heart Ingestion heart Ingestion liver kidney and/or bladder Ingestion endocrine system Ingestion liver kidney and/or bladder Ingestion hematopoietic system Ingestion hematopoietic system Ingestion endocrine system	bone, teeth, nails, and/or hair hematopoietic system liver immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system auditory system respiratory system vascular system eyes olfactory system vascular system respiratory system respiratory system auditory system data exposure Inhalation nervous system May cause damage to organs though prolonged or repeated exposure Some positive data exist, but the data are not sufficient for classification Inhalation heart liver kidney and/or bladder Inhalation endocrine system Not classified Inhalation immune system Not classified Inhalation bone, teeth, nails, and/or hair hematopoietic system vascular system vascular system agstrointestinal tract Not classified Ingestion nervous system Some positive data exist, but the data are not sufficient for classification Ingestion heart Not classified Not classified Not classified Ingestion liver kidney and/or bladder Not classified Ingestion liver kidney and/or bladder Not classified Ingestion liver kidney and/or bladder Not classified Ingestion hematopoietic system Not classified Not classified Ingestion endocrine system Not classified Not classified Ingestion Ingestion Ingestion Not classified Not classified Ingestion Ingestion	bone, teeth, nails, and/or hair hematopoietic system liver immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system nervous system mervous system eyes olfactory system eyes olfactory system nervous system May cause damage to organs through prolonged or repeated exposure system nervous system May cause damage to organs through prolonged or repeated exposure Some positive data exist, but the data are not sufficient for classification Inhalation heart liver kidney and/or bladder Inhalation endocrine system Not classified Rat Inhalation hematopoietic system Not classified Mouse Inhalation mematopoietic system vascular system Not classified Human Multiple animal species Some positive data exist, but the data are not sufficient for classification Inhalation Inhalation bone, teeth, nails, and/or hair Not classified Mouse Multiple animal system Some positive data exist, but the data are not sufficient for classification Ingestion heart Not classified Multiple animal species Some positive data exist, but the data are not sufficient for classification Ingestion liver kidney and/or bladder Not classified Multiple animal species Ingestion heart Not classified Multiple animal species Ingestion hematopoietic system Not classified Mouse Mouse Ingestion endocrine system Not classified Mouse Mouse Ingestion endocrine system Not classified Mouse Ingestion Endocrine system Not classifie	Inhalation

Aspiration Hazard

Name	Value		
Toluene	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.

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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.

No product test data available.

Material	CAS Nbr	Organism	Туре	Exposure	Test endpoint	Test result
Aliphatic	68911-25-1	Activated	Experimental	3 hours	EC50	410.3 mg/l
Polymer		sludge				
Diamine						
Aliphatic	68911-25-1	Fathead	Experimental	96 hours	LL50	2.16 mg/l
Polymer		minnow				
Diamine						
Aliphatic	68911-25-1	Green algae	Experimental	72 hours	EL50	0.43 mg/l
Polymer						
Diamine						
Aliphatic	68911-25-1	Water flea	Experimental	48 hours	EL50	0.57 mg/l
Polymer						
Diamine						
Aliphatic	68911-25-1	Green algae	Experimental	72 hours	NOEL	0.28 mg/l
Polymer						
Diamine						
4,7,10-	4246-51-9	Bacteria	Experimental	17 hours	EC50	4,000 mg/l
Trioxatridecane						
-1,13-Diamine						
4,7,10-	4246-51-9	Golden Orfe	Experimental	96 hours	LC50	>1,000 mg/l
Trioxatridecane						
-1,13-Diamine						
4,7,10-	4246-51-9	Green algae	Experimental	72 hours	EC50	>500 mg/l
Trioxatridecane						
-1,13-Diamine						
4,7,10-	4246-51-9	Water flea	Experimental	48 hours	EC50	218.16 mg/l
Trioxatridecane						
-1,13-Diamine						
4,7,10-	4246-51-9	Green algae	Experimental	72 hours	EC10	5.4 mg/l
Trioxatridecane						
-1,13-Diamine					 	
Calcium triflate		Green Algae	Estimated	72 hours	EC50	54 mg/l
Calcium triflate		Rainbow trout	Estimated	96 hours	LC50	>100 mg/l
Calcium triflate		Water flea	Estimated	48 hours	EC50	>100 mg/l
Calcium triflate		Green Algae	Estimated	72 hours	NOEC	6.4 mg/l
Toluene	108-88-3	Coho Salmon	Experimental	96 hours	LC50	5.5 mg/l
Toluene	108-88-3	Grass Shrimp	Experimental	96 hours	LC50	9.5 mg/l
Toluene	108-88-3	Green Algae	Experimental	72 hours	EC50	12.5 mg/l
Toluene	108-88-3	Leopard frog	Experimental	9 days	LC50	0.39 mg/l
Toluene	108-88-3	Pink Salmon	Experimental	96 hours	LC50	6.41 mg/l
Toluene	108-88-3	Water flea	Experimental	48 hours	EC50	3.78 mg/l
Toluene	108-88-3	Coho Salmon	Experimental	40 days	NOEC	1.39 mg/l
Toluene	108-88-3	Diatom	Experimental	72 hours	NOEC	10 mg/l

Toluene	108-88-3	Water flea	Experimental	7 days	NOEC	0.74 mg/l
Toluene	108-88-3	Activated sludge	Experimental	12 hours	IC50	292 mg/l
Toluene	108-88-3	Bacteria	Experimental	16 hours	NOEC	29 mg/l
Toluene	108-88-3	Bacteria	Experimental	24 hours	EC50	84 mg/l
Toluene	108-88-3	Redworm	Experimental	28 days	LC50	>150 mg per kg of bodyweight
Toluene	108-88-3	Soil microbes	Experimental	28 days	NOEC	<26 mg/kg (Dry Weight)

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Aliphatic	68911-25-1	Experimental	28 days	BOD	0 %	OECD 301F -
Polymer		Aquatic	-		BOD/ThBOD	Manometric
Diamine		Biodegrad				respirometry
		Aerobic				
4,7,10-	4246-51-9	Estimated		Photolytic half-	2.96 hours (t	Non-standard method
Trioxatridecane		Photolysis		life (in air)	1/2)	
-1,13-Diamine						
4,7,10-	4246-51-9	Experimental	25 days	CO2 evolution	-8 %CO2	OECD 301B - Modified
Trioxatridecane		Biodegradation			evolution/THC	sturm or CO2
-1,13-Diamine					O2 evolution	
Calcium triflate	55120-75-7	Estimated	28 days	BOD	0 %	OECD 301D - Closed
		Biodegradation			BOD/ThBOD	bottle test
Toluene	108-88-3	Experimental		Photolytic half-	5.2 days (t 1/2)	
		Photolysis		life (in air)		
Toluene	108-88-3	Experimental	20 days	BOD	80 %	APHA Std Meth
		Biodegradation			BOD/ThBOD	Water/Wastewater

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Aliphatic	68911-25-1	Estimated		Bioaccumulatio	42	Non-standard method
Polymer		Bioconcentrati		n factor		
Diamine		on				
4,7,10-	4246-51-9	Experimental		Log Kow	-1.25	Non-standard method
Trioxatridecane		Bioconcentrati				
-1,13-Diamine		on				
Calcium triflate	55120-75-7	Estimated	35 days	Bioaccumulatio	0.03	OECD 305E -
		Bioconcentrati	-	n factor		Bioaccumulation flow-
		on				through fish test
Toluene	108-88-3	Experimental	72 hours	Bioaccumulatio	90	
		BCF - Other		n factor		
Toluene	108-88-3	Experimental		Log Kow	2.73	
		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

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

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. 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
Hazard Classs/Division
Not applicable
Subsidiary Risk
Not applicable

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

Marine Transport (IMDG)

UN No Not applicable

Proper Shipping Name Not applicable Hazard Classs/Division Not applicable Subsidiary Risk Not applicable Packing Group: Not applicable

Environmental Hazards: 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 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. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Applicable Environmental, Health and Safety Regulations

The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 Hazardous Waste(Management, Handling & Transboundary) Rules, 2008 Hazardous Chemicals (Classification, Packaging and Labelling Draft Rules), 2011

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
Toluene

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India

3M(TM) Scotch-Weld(TM) Epoxy Adhesive DP190 Translucent, Part A

Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules: The product is classified as Non-Hazardous as per MSIHC Rules, 1989.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 1 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

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