Safety Data Sheet

Document group:	11-9658-3	**Version number:**	1.00
Issue Date:	17/02/2015	**Supersedes date:**	Initial issue.

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 Scotchkote 6233-4G, 6233-8G, and 6233-11G Fusion Bonded Epoxy Coating

Product Identification Numbers
80-6300-0068-7 80-6300-0069-5 80-6300-0070-3 80-6300-0071-1 80-6300-0143-8
80-6300-0144-6

1.2. Recommended use and restrictions on use

Recommended use
Coating., Corrosion Protection Coating for Metal

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
Serious Eye Damage/Irritation: Category 2B.
Skin Corrosion/Irritation: Category 3.
Skin Sensitizer: Category 1.
Reproductive Toxicity: Category 2.
Carcinogenicity: Category 1A.

2.2. Label elements
Signal Word

DANGER!

Symbols
Exclamation mark | Health Hazard |

Pictograms

HAZARD STATEMENTS:

H320	Causes eye irritation.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H361	Suspected of damaging fertility or the unborn child.
H350	May cause cancer.

PRECAUTIONARY STATEMENTS

Prevention:

P201	Obtain special instructions before use.
P280E	Wear protective gloves.

Response:

P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P308 + P313	IF exposed or concerned: Get medical advice/attention.

2.3. Other hazards
May form combustible dust concentrations in air.

SECTION 3: Composition/information on ingredients

The material is a MIXTURE.

Ingredient	CAS Nbr	% by Wt
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	25036-25-3	55 - 75
Silicic acid, calcium salt	13983-17-0	20 - 40
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	1 - 10
Epoxy resin - amine condensate	Trade Secret	1 - 3
Cyanoguanidine	461-58-5	1 - 3
Quartz	14808-60-7	< 0.5

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
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
Powdered material may form explosive dust-air mixture. Avoid fire fighting methods that would cause powders to become airborne.

Hazardous Decomposition or By-Products

Substance	Condition
Aldehydes.	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Hydrogen Chloride	During combustion.
Ammonia	During combustion.
Oxides of nitrogen.	During combustion.
Oxides of phosphorus.	During combustion.

5.3. Special protective actions for fire-fighters
No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Eliminate all ignition sources if safe to do so. Ventilate the area with fresh air. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Use wet sweeping compound or water to avoid dusting. Sweep up. Vacuum or sweep up. Warning: A

motor could be an ignition source and cause flammable gases or vapours or dust in the spill area to burn or explode. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing of vapours created during the cure cycle. Avoid breathing of dust created by cutting, sanding, grinding or machining. For industrial or professional use only. Store work clothes separately from other clothing, food and tobacco products. 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. Wash contaminated clothing before reuse. Use personal protective equipment (eg. gloves, respirators…) as required. Dust clouds of this material in combination with an ignition source may be explosive. Routine housekeeping should be instituted to ensure that combustible dusts do not accumulate on surfaces. Solids can generate static electricity charges when transferred and in mixing operations sufficient to be an ignition source. Evaluate the need for precautions, such as grounding and bonding, low energy transfer of material (e.g. low speed, short distance), or inert atmospheres.

7.2. Conditions for safe storage including any incompatibilities
No special storage requirements.

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
Quartz	14808-60-7	ACGIH	TWA(respirable fraction):0.025 mg/m3	A2: Suspected human carcin.

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
Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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. Provide local exhaust at process emission sources to control exposure near the source and to prevent the escape of dust into the work area. It is recommended that all dust control equipment (such as local exhaust ventilation), process equipment, and material transport systems involved in handling of this product be evaluated for the need for explosion-protection safeguards. Recognized safeguards include explosion relief vents, explosion suppression systems, and oxygen deficient process environments. Evaluate the need for electrically classified 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.
Gloves made from the following material(s) are recommended: Polymer laminate

f this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - 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	Solid.
Specific Physical Form:	Powder
Appearance/Odour	Green Powder
Odour threshold	*No data available.*
pH	*Not applicable.*
Melting point/Freezing point: NA	*No data available.*
Boiling point/Initial boiling point/Boiling range	*Not applicable.*
Flash point	No flash point
Evaporation rate	*Not applicable.*
Flammability (solid, gas)	Not classified
Flammable Limits(UEL)	*No data available.*
Vapour pressure	*Not applicable.*
Vapour density	*Not applicable.*
Vapour density	*Not applicable.*
Density	1.44 g/cm3
Relative density	1.44 [*Ref Std:*WATER=1]
Water solubility	Nil
Solubility- non-water	*No data available.*
Partition coefficient: n-octanol/water	*No data available.*
Decomposition temperature	*No data available.*
Viscosity	*Not applicable.*
Volatile organic compounds (VOC)	0 %
Percent volatile	0 %
VOC less H2O & exempt solvents	0 %
***Dust deflagration index (Kst)**	70 - 250 bar.m/s [*Details:*Typical Range]
Flash Point as text	No flash point
***Min. explosible conc.(MEC)**	35 - 55 g/m³ [*Details:*Typical Range]
***Min. ignition energy (MIE)**	3 - 100 mJ [*Details:*Typical Range]
***Min. ign temp(MIT)-dust cloud**	450 - 550 ºC [*Details:*Typical Range]

* The values noted with an asterisk (*) in the above table are representative values based on testing of raw materials and selected products. Additionally, a material's characteristics may change depending upon the process and conditions of use at a facility, including further changes in particle size, or mixture with other materials. In order to obtain specific data for the material, we recommend the user conduct characterization testing based on the use factors at the specific facility.

SECTION 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non reactive under normal use conditions

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Sparks and/or flames.

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
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. Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain.

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. Photosensitisation: Signs/symptoms may include a sunburn-like reaction such as blistering, redness, swelling, and itching from minor exposure to sunlight.

Eye contact
Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Dust created by cutting, grinding, sanding, or machining 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. May cause additional health effects (see below).

Additional Health Effects:

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

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

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	Dermal	Rat	LD50 > 1,600 mg/kg
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	Ingestion	Rat	LD50 > 1,000 mg/kg
Silicic acid, calcium salt	Dermal		LD50 estimated to be > 5,000 mg/kg
Silicic acid, calcium salt	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Rat	LD50 > 1,600 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Rat	LD50 > 1,000 mg/kg
Cyanoguanidine	Dermal	Rabbit	LD50 > 10,000 mg/kg
Cyanoguanidine	Ingestion	Rat	LD50 > 30,000 mg/kg
Quartz	Dermal		LD50 estimated to be > 5,000 mg/kg
Quartz	Ingestion		LD50 estimated to be > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	Rabbit	Mild irritant
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Rabbit	Mild irritant
Cyanoguanidine	Human and animal	Minimal irritation
Quartz	Professional judgement	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-	Rabbit	Moderate irritant

HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER		
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Rabbit	Moderate irritant
Cyanoguanidine	Professional judgement	Mild irritant

Skin Sensitisation

Name	Species	Value
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	Human and animal	Sensitising
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Human and animal	Sensitising
Cyanoguanidine	Guinea pig	Some positive data exist, but the data are not sufficient for classification

Respiratory Sensitisation

Name	Species	Value
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	Human	Some positive data exist, but the data are not sufficient for classification
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Human	Some positive data exist, but the data are not sufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	In vivo	Not mutagenic
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	In Vitro	Some positive data exist, but the data are not sufficient for classification
Silicic acid, calcium salt	In Vitro	Not mutagenic
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	In vivo	Not mutagenic
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Cyanoguanidine	In Vitro	Not mutagenic
Quartz	In Vitro	Some positive data exist, but the data are not sufficient for classification
Quartz	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Cyanoguanidine	Ingestion	Rat	Not carcinogenic
Quartz	Inhalation	Human and animal	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE	Ingestion	Not toxic to female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation

DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER					
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	Ingestion	Not toxic to male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	Dermal	Not toxic to development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	Ingestion	Not toxic to development	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Not toxic to development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to development	Rat	NOAEL 750 mg/kg/day	2 generation
Cyanoguanidine	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Cyanoguanidine	Ingestion	Not toxic to male reproduction	Rat	NOAEL 1,000 mg/kg/day	44 days
Cyanoguanidine	Ingestion	Not toxic to development	Rat	NOAEL 1,000 mg/kg/day	premating & 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
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	Dermal	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	2 years
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	Dermal	nervous system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	13 weeks
DI(4-HYDROXYPHENOL)ISOPROPYLIDENE	Ingestion	auditory system | heart | endocrine system |	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days

DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER		hematopoietic system | liver | eyes | kidney and/or bladder				
Silicic acid, calcium salt	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Silicic acid, calcium salt	Inhalation	pulmonary fibrosis	All data are negative	Human and animal	NOAEL Not available	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	nervous system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	auditory system | heart | endocrine system | hematopoietic system | liver | eyes | kidney and/or bladder	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days
Cyanoguanidine	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 6,822 mg/kg/day	13 weeks
Quartz	Inhalation	silicosis	Causes damage to organs through prolonged or repeated exposure	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:
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	Type	Exposure	Test endpoint	Test result
DI(4-HYDROXYPHENOL)ISOP	25036-25-3		Data not available or insufficient for			

ROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER			classification			
Epoxy resin - amine condensate	Trade Secret		Data not available or insufficient for classification			
Quartz	14808-60-7		Data not available or insufficient for classification			
Silicic acid, calcium salt	13983-17-0		Data not available or insufficient for classification			
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Water flea	Experimental	21 days	NOEC	0.3 mg/l
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Ricefish	Experimental	96 hours	LC50	1.41 mg/l
Cyanoguanidine	461-58-5	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
Cyanoguanidine	461-58-5	Ricefish	Experimental	96 hours	LC50	>100 mg/l
Cyanoguanidine	461-58-5	Water flea	Experimental	48 hours	EC50	>1,000 mg/l
Cyanoguanidine	461-58-5	Green algae	Experimental	72 hours	NOEC	556 mg/l
Cyanoguanidine	461-58-5	Water flea	Experimental	21 days	NOEC	25 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
DI(4-HYDROXYPHENOL)ISOPROPYLIDEN	25036-25-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

E DIGLYCIDYL ETHER-DI(4-HYDROXYP HENOL)ISOP ROPYLIDEN E COPOLYMER						
Epoxy resin - amine condensate	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'-Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Laboratory Hydrolysis		Hydrolytic half-life	<2 days (t 1/2)	Other methods
Silicic acid, calcium salt	13983-17-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Quartz	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'-Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Laboratory Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
Cyanoguanidin e	461-58-5	Experimental Biodegradation	28 days	BOD	0 % weight	OECD 301F - Manometric respirometry

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Epoxy resin - amine condensate	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Silicic acid, calcium salt	13983-17-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Quartz	14808-60-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

DI(4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER	25036-25-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Laboratory BCF - Other	28 days	Bioaccumulation factor	<42	Other methods
Cyanoguanidine	461-58-5	Experimental BCF-Carp	42 days	Bioaccumulation factor	3.1	OECD 305C-Bioaccum degree fish

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

Dispose of waste product 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 UN3077
Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains (4-HYDROXYPHENOL)ISOPROPYLIDENE DIGLYCIDYL ETHER-DI(4-HYDROXYPHENOL)ISOPROPYLIDENE COPOLYMER)
Hazard Classs/Division 9
Subsidiary Risk Not applicable
Packing Group: III

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 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.

Applicable Environmental, Health and Safety Regulations
Manufacture, Storage and Import of Hazardous Chemical Rules, 1989
Hazardous Waste(Management , Handling & Transboundary) Rules, 2008
Hazardous Chemicals (Classification, Packaging and Label Rules), 2001

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.

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 is available.

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