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 Unitek Transbond MIP Moisture Insensitive Primer (712-021, 712-025)

Product Identification Numbers
70-2020-8938-2 70-2020-8941-6

1.2. Recommended use and restrictions on use

Recommended use
Orthodontic use, Orthodontic use

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 2.
Acute Toxicity (oral): Category 5.
Skin Sensitizer: Category 1.
Specific Target Organ Toxicity (single exposure): Category 3.
Acute Aquatic Toxicity: Category 3.

2.2. Label elements
Signal Word
DANGER!

Symbols
Flame |Exclamation mark |

Pictograms

HAZARD STATEMENTS:

H225	Highly flammable liquid and vapour.
H303	May be harmful if swallowed.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H402	Harmful to aquatic life.

PRECAUTIONARY STATEMENTS

Prevention:

P210A	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280E	Wear protective gloves.

Response:

P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P370 + P378G	In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other hazards
Although ethyl alcohol is classified as a central nervous system depressant, exposures associated with this health effect are not expected during normal, intended use of this product.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Ethanol	64-17-5	30 - 40
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]	1565-94-2	15 - 25

bismethacrylate		
2-Hydroxyethyl methacrylate	868-77-9	10 - 20
2-Hydroxy-1,3-propanediyl bismethacrylate	1830-78-0	5 - 15
COPOLYMER OF ITACONIC AND ACRYLIC ACID	25948-33-8	5 - 15
DIURETHANE DIMETHACRYLATE	72869-86-4	1 - 10
Water	7732-18-5	1 - 10
Diphenyliodonium hexafluorophosphate	58109-40-3	< 1
Ethyl 4-dimethylaminobenzoate	10287-53-3	< 0.5
TRIPHENYLANTIMONY (XN; R:20/22)	603-36-1	< 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 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

Substance	Condition
Carbon monoxide.	During combustion.
Carbon dioxide.	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. 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. 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.

6.3. Methods and material for containment and cleaning up
Contain spill. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. 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. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Do not get in eyes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor accumulation.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from acids. Store away from oxidising agents.

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
ANTIMONY COMPOUNDS	603-36-1	ACGIH	TWA(as Sb):0.5 mg/m3	
Ethanol	64-17-5	ACGIH	STEL:1000 ppm	A3: Confirmed animal 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

Use in a well-ventilated area.

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:
Safety glasses with side shields.

Skin/hand protection
See Section 7.1 for additional information on skin protection.

Respiratory protection
None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Appearance/Odour	Clear, slight acrylate odor
Odour threshold	*No data available.*
pH	5
Melting point/Freezing point: NA	*Not applicable.*
Boiling point/Initial boiling point/Boiling range	78 ºC
Flash point	21.1 ºC [*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	*No data available.*
Vapour density	*No data available.*
Density	1.005 g/ml
Relative density	1.005 [*Ref Std:*WATER=1]
Water solubility	Negligible
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	15 mm²/sec
Molecular weight	*No data available.*
Volatile organic compounds (VOC)	*No data available.*
Percent volatile	*No data available.*
VOC less H2O & exempt solvents	*No data available.*

SECTION 10: Stability and reactivity

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

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Sparks and/or flames.

10.5 Incompatible materials
Strong oxidising agents.

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.

Eye 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.

Additional information:
This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified by the International Agency for Research on Cancer as carcinogenic to humans. There are also data associating human

consumption of alcoholic beverages with developmental toxicity and liver toxicity. Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer, developmental toxicity, or liver toxicity.

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
Ethanol	Dermal	Rabbit	LD50 > 15,800 mg/kg
Ethanol	Inhalation-Vapor (4 hours)	Rat	LC50 124.7 mg/l
Ethanol	Ingestion	Rat	LD50 17,800 mg/kg
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Dermal	Professional judgement	LD50 estimated to be 2,000 - 5,000 mg/kg
2-Hydroxyethyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-Hydroxyethyl methacrylate	Ingestion	Rat	LD50 5,564 mg/kg
2-Hydroxy-1,3-propanediyl bismethacrylate	Ingestion	similar compounds	LD50 300-2000 mg/kg
COPOLYMER OF ITACONIC AND ACRYLIC ACID	Ingestion	Rat	LD50 > 5,000 mg/kg
COPOLYMER OF ITACONIC AND ACRYLIC ACID	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
DIURETHANE DIMETHACRYLATE	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
DIURETHANE DIMETHACRYLATE	Ingestion	Rat	LD50 > 5,000 mg/kg
Diphenyliodonium hexafluorophosphate	Ingestion	Rat	LD50 32 mg/kg
Ethyl 4-dimethylaminobenzoate	Dermal	Rat	LD50 > 2,000 mg/kg
Ethyl 4-dimethylaminobenzoate	Ingestion	Rat	LD50 > 2,000 mg/kg
TRIPHENYLANTIMONY (XN; R:20/22)	Inhalation-Dust/Mist		LC50 estimated to be 1 - 5 mg/l
TRIPHENYLANTIMONY (XN; R:20/22)	Dermal	Rat	LD50 > 2,000 mg/kg
TRIPHENYLANTIMONY (XN; R:20/22)	Ingestion	Rat	LD50 82.5 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Overall product	Rabbit	No significant irritation
Ethanol	Rabbit	No significant irritation
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Not available	Minimal irritation
2-Hydroxyethyl methacrylate	Rabbit	Minimal irritation
Diphenyliodonium hexafluorophosphate	Rabbit	No significant irritation
Ethyl 4-dimethylaminobenzoate	Rabbit	No significant irritation
TRIPHENYLANTIMONY (XN; R:20/22)	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Ethanol	Rabbit	Severe irritant
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Not available	Moderate irritant

2-Hydroxyethyl methacrylate	Rabbit	Moderate irritant
Diphenyliodonium hexafluorophosphate	Rabbit	Mild irritant
Ethyl 4-dimethylaminobenzoate	Rabbit	Mild irritant
TRIPHENYLANTIMONY (XN; R:20/22)	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
Ethanol	Human	Not classified
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Guinea pig	Sensitising
2-Hydroxyethyl methacrylate	Human and animal	Sensitising
DIURETHANE DIMETHACRYLATE	Guinea pig	Sensitising

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
Overall product	In Vitro	Not mutagenic
Ethanol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Ethanol	In vivo	Some positive data exist, but the data are not sufficient for classification
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
2-Hydroxyethyl methacrylate	In vivo	Not mutagenic
2-Hydroxyethyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Diphenyliodonium hexafluorophosphate	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Ethanol	Ingestion	Multiple animal species	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
Ethanol	Inhalation	Not classified for development	Rat	NOAEL 38 mg/l	during gestation
Ethanol	Ingestion	Not classified for development	Rat	NOAEL 5,200 mg/kg/day	premating & during gestation
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion	Not classified for female reproduction	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion	Not classified for male reproduction	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion	Not classified for development	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
2-Hydroxyethyl methacrylate	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation

2-Hydroxyethyl methacrylate	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
2-Hydroxyethyl methacrylate	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Ethanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	LOAEL 2.6 mg/l	30 minutes
Ethanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	LOAEL 9.4 mg/l	not available
Ethanol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL not available	
Ethanol	Ingestion	kidney and/or bladder	Not classified	Dog	NOAEL 3,000 mg/kg	
COPOLYMER OF ITACONIC AND ACRYLIC ACID	Ingestion	nervous system	Not classified	Rat	NOAEL 5,000 mg/kg	
Diphenyliodonium hexafluorophosphate	Inhalation	respiratory irritation	Not classified	Not available	Irritation Equivocal	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Ethanol	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rabbit	LOAEL 124 mg/l	365 days
Ethanol	Inhalation	hematopoietic system | immune system	Not classified	Rat	NOAEL 25 mg/l	14 days
Ethanol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 8,000 mg/kg/day	4 months
Ethanol	Ingestion	kidney and/or bladder	Not classified	Dog	NOAEL 3,000 mg/kg/day	7 days
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion	endocrine system | liver | nervous system | kidney and/or bladder	Not classified	Mouse	NOAEL 0.8 mg/kg/day	premating & during gestation
COPOLYMER OF ITACONIC AND ACRYLIC ACID	Ingestion	endocrine system | hematopoietic system | liver	Not classified	Rat	NOAEL 200 mg/kg/day	28 days
COPOLYMER OF ITACONIC AND ACRYLIC ACID	Ingestion	heart | bone, teeth, nails, and/or hair | immune system | muscles | nervous system | eyes | kidney and/or bladder | respiratory system | vascular system	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days

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	Type	Exposure	Test endpoint	Test result
Ethanol	64-17-5	Rainbow trout	Experimental	96 hours	LC50	42 mg/l
Ethanol	64-17-5	Water flea	Experimental	48 hours	LC50	5,012 mg/l
Ethanol	64-17-5	Algae other	Experimental	96 hours	NOEC	1,580 mg/l
Ethanol	64-17-5	Water flea	Experimental	10 days	NOEC	9.6 mg/l
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	1565-94-2		Data not available or insufficient for classification			
2-Hydroxyethyl methacrylate	868-77-9	Fathead minnow	Experimental	96 hours	LC50	227 mg/l
2-Hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	EC50	710 mg/l
2-Hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
2-Hydroxyethyl methacrylate	868-77-9	Green Algae	Experimental	72 hours	NOEC	160 mg/l
2-Hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
2-Hydroxy-1,3-propanediyl bismethacrylate	1830-78-0	Green Algae	Experimental	96 hours	EC50	>100 mg/l
2-Hydroxy-1,3-propanediyl bismethacrylate	1830-78-0	Guppy	Experimental	96 hours	LC50	43.2 mg/l
2-Hydroxy-1,3-propanediyl	1830-78-0	Water flea	Experimental	48 hours	EC50	>100 mg/l

bismethacrylate						
2-Hydroxy-1,3-propanediyl bismethacrylate	1830-78-0	Green Algae	Experimental	96 hours	NOEC	16 mg/l
COPOLYMER OF ITACONIC AND ACRYLIC ACID	25948-33-8		Data not available or insufficient for classification			
DIURETHANE DIMETHACRYLATE	72869-86-4		Data not available or insufficient for classification			
Diphenyliodonium hexafluorophosphate	58109-40-3	Water flea	Experimental	48 hours	EC50	9.5 mg/l
Ethyl 4-dimethylamino benzoate	10287-53-3		Data not available or insufficient for classification			% weight
TRIPHENYLANTIMONY (XN; R:20/22)	603-36-1		Data not available or insufficient for classification			

12.2. Persistence and degradability

Material	**CAS Nbr**	**Test type**	**Duration**	**Study Type**	**Test result**	**Protocol**
Ethanol	64-17-5	Experimental Biodegradation	14 days	BOD	89 % BOD/ThBOD	OECD 301C - MITI test (I)
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	1565-94-2	Estimated Biodegradation	28 days	BOD	32 % weight	OECD 301C - MITI test (I)
2-Hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	14 days	BOD	95 % BOD/ThBOD	OECD 301C - MITI test (I)
2-Hydroxy-1,3-propanediyl bismethacrylate	1830-78-0	Experimental Biodegradation	28 days	BOD	84 % weight	OECD 301F - Manometric respirometry
COPOLYMER OF ITACONIC AND ACRYLIC ACID	25948-33-8	Data not available-insufficient			N/A	
DIURETHANE DIMETHACRYLATE	72869-86-4	Experimental Biodegradation	28 days	CO2 evolution	22 % weight	OECD 301B - Modified sturm or CO2
Diphenyliodonium	58109-40-3	Data not available-			N/A	

hexafluorophosphate		insufficient				
TRIPHENYLANTIMONY (XN; R:20/22)	603-36-1	Estimated Biodegradation	28 days	BOD	<20 % weight	OECD 301F - Manometric respirometry

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Ethanol	64-17-5	Experimental Bioconcentration		Log Kow	-0.35	Other methods
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	1565-94-2	Estimated Bioconcentration		Bioaccumulation factor	5.8	Estimated: Bioconcentration factor
2-Hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentration		Log Kow	0.42	Other methods
2-Hydroxy-1,3-propanediyl bismethacrylate	1830-78-0	Estimated Bioconcentration		Bioaccumulation factor	3.0	Estimated: Bioconcentration factor
COPOLYMER OF ITACONIC AND ACRYLIC ACID	25948-33-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
DIURETHANE DIMETHACRYLATE	72869-86-4	Experimental Bioconcentration		Log Kow	3.39	Other methods
Diphenyliodonium hexafluorophosphate	58109-40-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
TRIPHENYLANTIMONY (XN; R:20/22)	603-36-1	Estimated Bioconcentration		Log Kow	6.02	Estimated: Octanol-water partition coefficient

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.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal

facility.

SECTION 14: Transport Information

Air Transport (IATA)Regulations
UN No UN1170
Proper Shipping Name ETHANOL SOLUTION
Hazard Classs/Division 3
Subsidiary Risk Not applicable
Packing Group: II

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.

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
Central Motor Vehicle Rules, 1989

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
Ethanol

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 very highly flammable liquid

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 3 **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:
Section 14: Packing group (IMO) information was added.
Label: GHS Precautionary - Prevention information was modified.

Label: GHS Precautionary - Storage information was modified.
Section 5: Fire - Advice for fire fighters information information was modified.
Section 6: Accidental release clean-up information information was modified.
Section 6: Accidental release personal information information was modified.
Section 7: Precautions safe handling information information was modified.
Section 9: Density information information was modified.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 11: Target Organs - Single Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12:Bioccumulative potential information information was modified.
Section 13: 13.1. Waste disposal note information was modified.
Section 13: Standard Phrase Category Waste GHS information was modified.
Section 14: Environmental hazards information was added.
Section 14: IMO Subsidiary Risk information was added.
Section 14: IMO transport hazard classes information was added.
Section 14: Proper Shipping Name (IMO) information was added.
Section 14: UN Number (IMO) information was added.
Section 15: Applicable Environmental, Health and Safety Regulations information was modified.

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