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™ Wind Dry LayUp Adhesive 2.0 - W7900 (Aerosol)

Product Identification Numbers
70-0066-8701-9 70-0066-8716-7 70-0067-9357-7 80-0002-1716-8 HB-0044-7200-5 HB-0046-0441-7

1.2. Recommended use and restrictions on use

Recommended use
Adhesive, sprayable adhesive

Restrictions on use
For industrial use only. Not for consumer sale or use.

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

Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (repeated exposure): Category 1.
Specific Target Organ Toxicity (single exposure): Category 3.
Acute Aquatic Toxicity: Category 2.
Chronic Aquatic Toxicity: Category 3.

2.2. Label elements
Signal Word
Danger

Symbols
Flame | Exclamation mark | Health Hazard |

Pictograms

HAZARD STATEMENTS:

H222	Extremely flammable aerosol.
H229	Pressurised container. may burst if heated.
H316	Causes mild skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H360	May damage fertility or the unborn child.
H336	May cause drowsiness or dizziness.
H370	Causes damage to organs: cardiovascular system.
H372	Causes damage to organs through prolonged or repeated exposure: nervous system | sensory organs.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280K	Wear protective gloves and respiratory protection.

Response:

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Storage:

P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50C/122F.

2.3. Other hazards
Intentional misuse by deliberately concentrating and inhaling contents can be harmful or fatal. Aspiration classification does not apply as this product is sold in sealed, self-pressurized containers with nozzles designed to prevent formation of a stream during usage. Simple Asphyxiation May displace oxygen and cause rapid suffocation.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Acetone	67-64-1	35 - 45
Propane	74-98-6	10 - 15
1,1-Difluoroethane	75-37-6	10 - 15
Rosin and resin acids, esters with glycerol	65997-10-6	< 10
Acrylic Acid Butyl Ester, Polymer With Methyl Methacrylate	25852-37-3	7 - 10
Cyclohexane	110-82-7	< 10
Glycerol Esters Of Rosin Acids	8050-31-5	< 3
Methyl Acetate	79-20-9	<= 3
Water	7732-18-5	< 3
Toluene	108-88-3	< 1.5
Resin acids and Rosin acids, esters with diethylene glycol	68153-38-8	< 1.5
Butanone	78-93-3	<= 1.5
Dimethyl Glutarate	1119-40-0	< 1
Green Pigment	633-03-4	< 0.1
Benzene	71-43-2	Trace < 0.05

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. 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
Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. 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

Allergic skin reaction (redness, swelling, blistering, and itching). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects. See Section 11 for additional details. Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required
Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable Extinguishing media
Use a fire fighting agent suitable for the surrounding fire.

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.
Toxic vapour, gas, particulate.	During combustion.

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
If possible, seal leaking container. Place leaking containers in a well-ventilated area, preferably an operating exhaust hood, or if necessary outdoors on an impermeable surface until appropriate packaging for the leaking container or its contents is available. Contain spill. Cover spill area with a fire-extinguishing foam. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a 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
Do not use in a confined area with minimal air exchange. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. 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. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) 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. Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store away from heat. 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
Toluene	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human carcin, Ototoxicant
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Acetone	67-64-1	ACGIH	TWA:250 ppm;STEL:500 ppm	A4: Not class. as human carcin
Benzene	71-43-2	ACGIH	TWA:0.5 ppm;STEL:2.5 ppm	A1: Confirmed human carcin., Danger of cutaneous absorption
Propane	74-98-6	ACGIH	Limit value not established:	asphyxiant
1,1-Difluoroethane	75-37-6	AIHA	TWA:2700 mg/m3(1000 ppm)	
Butanone	78-93-3	ACGIH	TWA:200 ppm;STEL:300 ppm	
Methyl Acetate	79-20-9	ACGIH	TWA:200 ppm;STEL:250 ppm	

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Do not remain in area where available oxygen may be reduced. 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:
Full face shield.
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

If 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
Half facepiece or full facepiece supplied-air respirator
Organic vapor catridges may have short service life.

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Aerosol
Color	Green
Odor	Mild Acetone, Mild Cyclohexane
Odour threshold	*No data available.*
pH	*Not applicable.*
Melting point/Freezing point: NA	*Not applicable.*
Boiling point/Initial boiling point/Boiling range	*No data available.*
Flash point	-104.4 ºC [*Test Method:*Closed Cup]
Evaporation rate	> 1 [*Ref Std:*BUOAC=1]
Flammability	Flammable Aerosol: Category 1.
Flammable Limits(LEL)	1.3 % volume
Flammable Limits(UEL)	12.8 % volume
Vapor Density and/or Relative Vapor Density	> 1 [*Ref Std:*AIR=1]
Density	0.8 g/ml
Relative density	0.8 [*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	*Not applicable.*
Kinematic Viscosity	125 mm²/sec
Volatile organic compounds (VOC)	*No data available.*
Percent volatile	± 80 % weight
VOC less H2O & exempt solvents	26.09 %
Average particle size	*No data available.*
Bulk density	*No data available.*
Molecular weight	*No data available.*
Softening point	*No data available.*

Particle Characteristics	*Not applicable.*

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.

10.5 Incompatible materials
Combustibles.

No data available.

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
Simple asphyxiation: Signs/symptoms may include increased heart rate, rapid respirations, drowsiness, headache, incoordination, altered judgement, nausea, vomiting, lethargy, seizures, coma, and may be fatal. 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
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.

Eye contact
Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. 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. Single exposure, above recommended guidelines, may cause: Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

Prolonged or repeated exposure may cause target organ effects:
Ocular effects: Signs/symptoms may include blurred or significantly impaired vision. Auditory effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears. Olfactory effects: Signs/symptoms may include decreased ability to detect odours and complete loss of smell. Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate.

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

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	Inhalation-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
Acetone	Inhalation-Vapor (4 hours)	Rat	LC50 76 mg/l
Acetone	Ingestion	Rat	LD50 5,800 mg/kg
Propane	Inhalation-Gas (4 hours)	Rat	LC50 > 200,000 ppm
1,1-Difluoroethane	Inhalation-Gas (4 hours)	Rat	LC50 > 437,000 ppm
Cyclohexane	Dermal	Rat	LD50 > 2,000 mg/kg
Cyclohexane	Inhalation-Vapor (4 hours)	Rat	LC50 > 32.9 mg/l
Cyclohexane	Ingestion	Rat	LD50 6,200 mg/kg
Rosin and resin acids, esters with glycerol	Dermal	Rat	LD50 > 2,000 mg/kg
Rosin and resin acids, esters with glycerol	Ingestion	Rat	LD50 > 2,000 mg/kg
Methyl Acetate	Dermal	Rat	LD50 > 2,000 mg/kg
Methyl Acetate	Inhalation-Vapor (4 hours)	Rat	LC50 > 49 mg/l
Methyl Acetate	Ingestion	Rat	LD50 > 5,000 mg/kg
Glycerol Esters Of Rosin Acids	Ingestion	Rat	LD50 >300, <2000 mg/kg
Butanone	Dermal	Rabbit	LD50 > 8,050 mg/kg
Butanone	Inhalation-Vapor (4 hours)	Rat	LC50 34.5 mg/l
Butanone	Ingestion	Rat	LD50 2,737 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapor (4 hours)	Rat	LC50 30 mg/l
Toluene	Ingestion	Rat	LD50 5,550 mg/kg
Resin acids and Rosin acids, esters with diethylene glycol	Ingestion	Rat	LD50 >300, <2000 mg/kg
Dimethyl Glutarate	Dermal	similar	LD50 > 2,000 mg/kg

		compounds	
Dimethyl Glutarate	Inhalation-Dust/Mist (4 hours)	similar compounds	LC50 > 11 mg/l
Dimethyl Glutarate	Ingestion	similar compounds	LD50 > 5,000 mg/kg
Green Pigment	Dermal	Rat	LD50 > 2,000 mg/kg
Green Pigment	Ingestion	Rat	LD50 674 mg/kg
Benzene	Dermal	Multiple animal species	LD50 > 8,260 mg/kg
Benzene	Inhalation-Vapor (4 hours)	Rat	LC50 43.8 mg/l
Benzene	Ingestion	Rat	LD50 5,970 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Acetone	Mouse	Minimal irritation
Propane	Rabbit	Minimal irritation
Cyclohexane	Rabbit	Mild irritant
Rosin and resin acids, esters with glycerol	Rabbit	No significant irritation
Methyl Acetate	Rabbit	No significant irritation
Glycerol Esters Of Rosin Acids	In vitro data	No significant irritation
Butanone	Rabbit	Minimal irritation
Toluene	Rabbit	Irritant
Resin acids and Rosin acids, esters with diethylene glycol	In vitro data	No significant irritation
Dimethyl Glutarate	similar compounds	No significant irritation
Green Pigment	Professional judgement	Irritant
Benzene	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Acetone	Rabbit	Severe irritant
Propane	Rabbit	Mild irritant
Cyclohexane	Rabbit	Mild irritant
Rosin and resin acids, esters with glycerol	Rabbit	Moderate irritant
Methyl Acetate	Rabbit	Moderate irritant
Glycerol Esters Of Rosin Acids	In vitro data	No significant irritation
Butanone	Rabbit	Severe irritant
Toluene	Rabbit	Moderate irritant
Resin acids and Rosin acids, esters with diethylene glycol	In vitro data	No significant irritation
Dimethyl Glutarate	similar compounds	Mild irritant
Green Pigment	Rabbit	Corrosive
Benzene	Rabbit	Severe irritant

Sensitization:

Skin Sensitisation

Name	Species	Value
Rosin and resin acids, esters with glycerol	Mouse	Sensitising
Methyl Acetate	Human	Not classified
Glycerol Esters Of Rosin Acids	In vitro data	Not classified
Toluene	Guinea pig	Not classified
Resin acids and Rosin acids, esters with diethylene glycol	In vitro data	Not classified
Dimethyl Glutarate	similar compounds	Not classified
Green Pigment	Mouse	Sensitising
Benzene	Multiple animal species	Not classified

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
Acetone	In vivo	Not mutagenic
Acetone	In Vitro	Some positive data exist, but the data are not sufficient for classification
Propane	In Vitro	Not mutagenic
1,1-Difluoroethane	In Vitro	Some positive data exist, but the data are not sufficient for classification
1,1-Difluoroethane	In vivo	Some positive data exist, but the data are not sufficient for classification
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
Rosin and resin acids, esters with glycerol	In Vitro	Not mutagenic
Methyl Acetate	In Vitro	Not mutagenic
Methyl Acetate	In vivo	Not mutagenic
Glycerol Esters Of Rosin Acids	In Vitro	Not mutagenic
Butanone	In Vitro	Not mutagenic
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic
Resin acids and Rosin acids, esters with diethylene glycol	In Vitro	Not mutagenic
Dimethyl Glutarate	In vivo	Not mutagenic
Dimethyl Glutarate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Green Pigment	In Vitro	Not mutagenic
Green Pigment	In vivo	Not mutagenic
Benzene	In Vitro	Some positive data exist, but the data are not sufficient for classification
Benzene	In vivo	Mutagenic

Carcinogenicity

Name	Route	Species	Value
Acetone	Not specified.	Multiple animal species	Not carcinogenic
1,1-Difluoroethane	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Butanone	Inhalation	Human	Not carcinogenic
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 classification
Toluene	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
Benzene	Dermal	Mouse	Carcinogenic.
Benzene	Ingestion	Multiple animal species	Carcinogenic.
Benzene	Inhalation	Human	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Acetone	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,700 mg/kg/day	13 weeks
Acetone	Inhalation	Not classified for development	Rat	NOAEL 5.2 mg/l	during organogenesis
1,1-Difluoroethane	Inhalation	Not classified for development	Rat	NOAEL 50,000 ppm	during organogenesis
Cyclohexane	Inhalation	Not classified for female reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Not classified for male reproduction	Rat	NOAEL 24 mg/l	2 generation
Cyclohexane	Inhalation	Not classified for development	Rat	NOAEL 6.9 mg/l	2 generation
Rosin and resin acids, esters with glycerol	Ingestion	Not classified for female reproduction	Rat	NOAEL 15,000 ppm in the diet	premating into lactation
Rosin and resin acids, esters with glycerol	Ingestion	Not classified for male reproduction	Rat	NOAEL 3,000 ppm in the diet	42 days
Rosin and resin acids, esters with glycerol	Ingestion	Not classified for development	Rat	NOAEL 622 mg/kg/day	during gestation
Butanone	Inhalation	Not classified for development	Rat	LOAEL 8.8 mg/l	during gestation
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
Dimethyl Glutarate	Inhalation	Not classified for development	Rabbit	NOAEL 1 mg/l	during gestation
Benzene	Inhalation	Not classified for female reproduction	Rat	NOAEL 0.96 mg/l	premating into lactation
Benzene	Inhalation	Not classified for development	Rat	NOAEL 0.032 mg/l	during organogenesis
Benzene	Ingestion	Toxic to male reproduction	Rat	LOAEL 50 mg/kg/day	90 days

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Acetone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Acetone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19	6 hours

					mg/l	
Acetone	Inhalation	liver	Not classified	Guinea pig	NOAEL Not available	
Acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Propane	Inhalation	cardiac sensitization	Causes damage to organs	Human	NOAEL Not available	
Propane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Propane	Inhalation	respiratory irritation	Not classified	Human	NOAEL Not available	
1,1-Difluoroethane	Inhalation	cardiac sensitization	Causes damage to organs	Human and animal	NOAEL Not available	poisoning and/or abuse
1,1-Difluoroethane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL 100,000 ppm	
1,1-Difluoroethane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
Cyclohexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Cyclohexane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Rosin and resin acids, esters with glycerol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	
Methyl Acetate	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Methyl Acetate	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
Methyl Acetate	Inhalation	blindness	Not classified		NOAEL Not available	
Methyl Acetate	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
Butanone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	official classification	NOAEL Not available	
Butanone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Butanone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Butanone	Ingestion	liver	Not classified	Rat	NOAEL Not available	not applicable
Butanone	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 1,080 mg/kg	not applicable
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
Dimethyl Glutarate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for	Professional	NOAEL Not available	

			classification	judgement		
Green Pigment	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL not available	
Benzene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available.	
Benzene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available.	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Acetone	Dermal	eyes	Not classified	Guinea pig	NOAEL Not available	3 weeks
Acetone	Inhalation	hematopoietic system	Not classified	Human	NOAEL 3 mg/l	6 weeks
Acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 days
Acetone	Inhalation	kidney and/or bladder	Not classified	Guinea pig	NOAEL 119 mg/l	not available
Acetone	Inhalation	heart | liver	Not classified	Rat	NOAEL 45 mg/l	8 weeks
Acetone	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 900 mg/kg/day	13 weeks
Acetone	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 200 mg/kg/day	13 weeks
Acetone	Ingestion	liver	Not classified	Mouse	NOAEL 3,896 mg/kg/day	14 days
Acetone	Ingestion	eyes	Not classified	Rat	NOAEL 3,400 mg/kg/day	13 weeks
Acetone	Ingestion	respiratory system	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	muscles	Not classified	Rat	NOAEL 2,500 mg/kg	13 weeks
Acetone	Ingestion	skin | bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
1,1-Difluoroethane	Inhalation	hematopoietic system | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 25,000 ppm	2 years
Cyclohexane	Inhalation	liver	Not classified	Rat	NOAEL 24 mg/l	90 days
Cyclohexane	Inhalation	auditory system	Not classified	Rat	NOAEL 1.7 mg/l	90 days
Cyclohexane	Inhalation	kidney and/or bladder	Not classified	Rabbit	NOAEL 2.7 mg/l	10 weeks
Cyclohexane	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 24 mg/l	14 weeks
Cyclohexane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 8.6 mg/l	30 weeks
Rosin and resin acids, esters with glycerol	Ingestion	heart | hematopoietic system | liver | nervous system | eyes | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 1,296 mg/kg/day	90 days

Methyl Acetate	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	28 days
Methyl Acetate	Inhalation	endocrine system | hematopoietic system | liver | immune system | kidney and/or bladder	Not classified	Rat	NOAEL 6.1 mg/l	28 days
Butanone	Dermal	nervous system	Not classified	Guinea pig	NOAEL Not available	31 weeks
Butanone	Inhalation	liver | kidney and/or bladder | heart | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | immune system | muscles	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Butanone	Ingestion	liver	Not classified	Rat	NOAEL Not available	7 days
Butanone	Ingestion	nervous system	Not classified	Rat	NOAEL 173 mg/kg/day	90 days
Toluene	Inhalation	auditory system | nervous system | eyes | olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Toluene	Inhalation	heart | liver | kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
Toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
Toluene	Inhalation	hematopoietic system | vascular system	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
Toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	liver | kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
Toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks
Dimethyl Glutarate	Inhalation	endocrine system | respiratory system | hematopoietic system | liver | nervous system | eyes | kidney and/or bladder	Not classified	Rat	NOAEL 0.4 mg/l	90 days
Benzene	Inhalation	hematopoietic	Causes damage to organs through	Human	NOAEL Not	

		system	prolonged or repeated exposure	and animal	available.	
Benzene	Inhalation	heart | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | liver | immune system | muscles | nervous system | eyes | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 0.96 mg/l	90 days
Benzene	Ingestion	hematopoietic system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 25 mg/kg/day	90 days
Benzene	Ingestion	heart | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | liver | immune system | nervous system | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 600 mg/kg/day	90 days

Aspiration Hazard

Name	Value
Cyclohexane	Aspiration hazard
Toluene	Aspiration hazard
Benzene	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.

12.1. Toxicity

Acute aquatic hazard:
GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:
GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Acetone	67-64-1	Algae or other aquatic plants	Experimental	96 hours	EC50	11,493 mg/l
Acetone	67-64-1	Invertebrate	Experimental	24 hours	LC50	2,100 mg/l
Acetone	67-64-1	Rainbow trout	Experimental	96 hours	LC50	5,540 mg/l
Acetone	67-64-1	Water flea	Experimental	21 days	NOEC	1,000 mg/l
Acetone	67-64-1	Bacteria	Experimental	16 hours	NOEC	1,700 mg/l
Acetone	67-64-1	Redworm	Experimental	48 hours	LC50	>100
1,1-Difluoroethane	75-37-6	Bacteria	Analogous	6 hours	EC50	>472.57 mg/l

			Compound			
1,1-Difluoroethane	75-37-6	Rainbow trout	Analogous Compound	96 hours	LC50	291.31 mg/l
1,1-Difluoroethane	75-37-6	Water flea	Analogous Compound	48 hours	EC50	634.41 mg/l
Propane	74-98-6	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Acrylic Acid Butyl Ester, Polymer With Methyl Methacrylate	25852-37-3	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Cyclohexane	110-82-7	Fathead minnow	Experimental	96 hours	LC50	4.53 mg/l
Cyclohexane	110-82-7	Water flea	Experimental	48 hours	EC50	0.9 mg/l
Cyclohexane	110-82-7	Bacteria	Experimental	24 hours	IC50	97 mg/l
Rosin and resin acids, esters with glycerol	65997-10-6	Zebra Fish	Analogous Compound	96 hours	LC50	>400 mg/l
Rosin and resin acids, esters with glycerol	65997-10-6	Green algae	Experimental	72 hours	EL50	>100 mg/l
Rosin and resin acids, esters with glycerol	65997-10-6	Water flea	Experimental	48 hours	EL50	>100 mg/l
Rosin and resin acids, esters with glycerol	65997-10-6	Green algae	Experimental	72 hours	NOEL	100 mg/l
Glycerol Esters Of Rosin Acids	8050-31-5	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
Glycerol Esters Of Rosin Acids	8050-31-5	Rainbow trout	Estimated	96 hours	No tox obs at lmt of water sol	>100 mg/l
Glycerol Esters Of Rosin Acids	8050-31-5	Water flea	Estimated	48 hours	No tox obs at lmt of water sol	>100 mg/l
Glycerol Esters Of Rosin Acids	8050-31-5	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
Methyl Acetate	79-20-9	Bacteria	Experimental	16 hours	EC50	6,000 mg/l
Methyl Acetate	79-20-9	Green algae	Experimental	72 hours	ErC50	>120 mg/l
Methyl Acetate	79-20-9	Water flea	Experimental	48 hours	EC50	1,026.7 mg/l
Methyl Acetate	79-20-9	Green algae	Experimental	72 hours	NOEC	120 mg/l
Butanone	78-93-3	Fathead minnow	Experimental	96 hours	LC50	2,993 mg/l
Butanone	78-93-3	Green algae	Experimental	96 hours	ErC50	2,029 mg/l
Butanone	78-93-3	Water flea	Experimental	48 hours	EC50	308 mg/l
Butanone	78-93-3	Green algae	Experimental	96 hours	ErC10	1,289 mg/l
Butanone	78-93-3	Water flea	Experimental	21 days	NOEC	100 mg/l
Butanone	78-93-3	Bacteria	Experimental	16 hours	LOEC	1,150 mg/l
Resin acids and Rosin acids, esters with diethylene glycol	68153-38-8	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 mg/l
Resin acids and Rosin acids, esters with diethylene glycol	68153-38-8	Rainbow trout	Estimated	96 hours	No tox obs at lmt of water sol	>100 mg/l
Resin acids and Rosin acids, esters with diethylene glycol	68153-38-8	Water flea	Estimated	48 hours	No tox obs at lmt of water sol	>100 mg/l
Resin acids and Rosin acids, esters with diethylene glycol	68153-38-8	Green algae	Estimated	72 hours	No tox obs at lmt of water sol	>100 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)
Dimethyl Glutarate	1119-40-0	Bacteria	Experimental	18 hours	EC10	62.5 mg/l
Dimethyl Glutarate	1119-40-0	Bluegill	Experimental	96 hours	LC50	30.9 mg/l
Dimethyl Glutarate	1119-40-0	Green algae	Experimental	72 hours	EC50	>85 mg/l
Dimethyl Glutarate	1119-40-0	Green algae	Experimental	72 hours	NOEC	36 mg/l
Green Pigment	633-03-4	Bluegill	Analogous Compound	96 hours	LC50	0.0305 mg/l
Green Pigment	633-03-4	Duckweed	Analogous Compound	7 days	EC50	2.205 mg/l
Green Pigment	633-03-4	Water flea	Analogous Compound	48 hours	EC50	0.028 mg/l
Green Pigment	633-03-4	Duckweed	Analogous Compound	7 days	EC10	0.028 mg/l
Benzene	71-43-2	Green algae	Experimental	72 hours	EC50	100 mg/l
Benzene	71-43-2	Rainbow trout	Experimental	96 hours	LC50	5.3 mg/l
Benzene	71-43-2	Water flea	Experimental	48 hours	EC50	10 mg/l
Benzene	71-43-2	Fathead minnow	Experimental	32 days	NOEC	0.8 mg/l
Benzene	71-43-2	Green algae	Experimental	72 hours	EC10	34 mg/l
Benzene	71-43-2	Water flea	Experimental	7 days	NOEC	3 mg/l
Benzene	71-43-2	Bacteria	Experimental	24 hours	IC50	13 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Acetone	67-64-1	Experimental Biodegradation	28 days	BOD	78 %BOD/ThOD	OECD 301D - Closed bottle test
Acetone	67-64-1	Experimental Photolysis		Photolytic half-life (in air)	147 days (t 1/2)	
1,1-Difluoroethane	75-37-6	Analogous Compound Biodegradation	28 days	BOD	3 %BOD/ThOD	OECD 301D - Closed bottle test
1,1-Difluoroethane	75-37-6	Modeled Photolysis		Photolytic half-life (in air)	916 days (t 1/2)	Episuite™
Propane	74-98-6	Experimental Photolysis		Photolytic half-life (in air)	27.5 days (t 1/2)	
Acrylic Acid Butyl Ester, Polymer With Methyl Methacrylate	25852-37-3	Data not available-insufficient	N/A	N/A	N/A	N/A
Cyclohexane	110-82-7	Experimental Biodegradation	28 days	BOD	77 %BOD/ThOD	OECD 301F - Manometric respirometry
Cyclohexane	110-82-7	Experimental Photolysis		Photolytic half-life (in air)	4.3 days (t 1/2)	
Rosin and resin acids, esters with glycerol	65997-10-6	Analogous Compound Biodegradation	28 days	CO2 evolution	5 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Glycerol Esters Of Rosin Acids	8050-31-5	Estimated Biodegradation	28 days	CO2 evolution	0 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Glycerol Esters Of Rosin Acids	8050-31-5	Estimated Biodegradation	28 days	CO2 evolution	19.7 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Methyl Acetate	79-20-9	Experimental Biodegradation	28 days	BOD	70 %BOD/ThOD	OECD 301D - Closed bottle test

Butanone	78-93-3	Experimental Biodegradation	28 days	BOD	98 %BOD/ThOD	OECD 301D - Closed bottle test
Resin acids and Rosin acids, esters with diethylene glycol	68153-38-8	Estimated Biodegradation	28 days	CO2 evolution	0 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Resin acids and Rosin acids, esters with diethylene glycol	68153-38-8	Estimated Biodegradation	28 days	CO2 evolution	19.7 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Toluene	108-88-3	Experimental Biodegradation	20 days	BOD	80 %BOD/ThOD	APHA Std Meth Water/Wastewater
Toluene	108-88-3	Experimental Photolysis		Photolytic half-life (in air)	5.2 days (t 1/2)	
Dimethyl Glutarate	1119-40-0	Experimental Biodegradation	14 days	BOD	90 %BOD/ThOD	OECD 301C - MITI test (I)
Green Pigment	633-03-4	Analogous Compound Biodegradation	28 days	Percent degraded	< 10 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Benzene	71-43-2	Experimental Biodegradation	28 days	BOD	96 %BOD/ThOD	OECD 301F - Manometric respirometry
Benzene	71-43-2	Experimental Photolysis		Photolytic half-life (in air)	26 days (t 1/2)	

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Acetone	67-64-1	Experimental BCF - Other		Bioaccumulation factor	0.65	
Acetone	67-64-1	Experimental Bioconcentration		Log Kow	-0.24	
1,1-Difluoroethane	75-37-6	Modeled Bioconcentration		Log Kow	1.13	Episuite™
Propane	74-98-6	Experimental Bioconcentration		Log Kow	2.36	
Acrylic Acid Butyl Ester, Polymer With Methyl Methacrylate	25852-37-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Cyclohexane	110-82-7	Experimental BCF - Fish	56 days	Bioaccumulation factor	129	OECD305-Bioconcentration
Cyclohexane	110-82-7	Experimental Bioconcentration		Log Kow	3.44	
Rosin and resin acids, esters with glycerol	65997-10-6	Experimental Bioconcentration		Log Kow	>6.5	OECD 117 log Kow HPLC method
Rosin and resin acids, esters with glycerol	65997-10-6	Experimental Bioconcentration		Log Kow	2.48	OECD 117 log Kow HPLC method
Glycerol Esters Of Rosin Acids	8050-31-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Methyl Acetate	79-20-9	Experimental Bioconcentration		Log Kow	0.18	
Butanone	78-93-3	Experimental Bioconcentration		Log Kow	0.3	OECD 117 log Kow HPLC method
Resin acids and Rosin acids, esters with diethylene glycol	68153-38-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulation factor	90	
Toluene	108-88-3	Experimental Bioconcentration		Log Kow	2.73	
Dimethyl Glutarate	1119-40-0	Experimental Bioconcentration		Log Kow	0.49	

Green Pigment	633-03-4	Experimental Bioconcentration		Log Kow	0.765	OECD 107 log Kow shke flsk mtd
Benzene	71-43-2	Experimental BCF - Other		Bioaccumulation factor	<10	similar to OECD 305
Benzene	71-43-2	Experimental Bioconcentration		Log Kow	2.13	

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. Facility must be capable of handling aerosol cans. As a disposal alternative, utilize an acceptable permitted waste disposal facility. 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 UN1950
Proper Shipping Name AEROSOLS, FLAMMABLE
Hazard Classs/Division 2.1
Subsidiary Risk Not applicable
Packing Group: Not applicable

Marine Transport (IMDG)
UN No UN1950
Proper Shipping Name AEROSOLS, FLAMMABLE
Hazard Classs/Division 2.1
Subsidiary Risk Not applicable
Packing Group: Not applicable
Environmental Hazards: Marine Pollutant: No

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 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
2-Butanone
Acetone
Benzene
Cyclohexane
Butanone
Toluene

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 Extremely Flammable (Aerosol).

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 4 **Instability:** 0 **Special Hazards:** None
Aerosol Storage Code: 3

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 2: Ingredient table information was modified.
Section 8: Occupational exposure limit table information was modified.
Section 8: Respiratory protection - recommended respirators information information was modified.
Section 9: Flammability (solid, gas) information information was deleted.
Section 09: Flammability information information was added.
Section 09: Kinematic Viscosity information information was added.
Section 09: Odor information was modified.
Section 09: Particle Characteristics N/A information was added.
Section 09: Viscosity information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Aspiration Hazard Table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Germ Cell Mutagenicity Table 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 15: MSIHC Ingredients information was modified.

DISCLAIMER: The information in this Safety Data Sheet (SDS) 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 SDS or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own evaluation to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into India, you are responsible to comply with all applicable regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration/notification.

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