Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the Canadian Hazardous Products Regulations.

SECTION 1: Identification

1.1. Product identifier

3M™ Hi-Strength Spray Adhesive 90 (Aerosol)

Product Identification Numbers

62-4942-0926-5	62-4942-4730-7	62-4942-4920-4	62-4942-4921-2	62-4942-4922-0
62-4942-4925-3	62-4942-4927-9	62-4942-4928-7	62-4942-4930-3	62-4942-4935-2
62-4942-4938-6	62-4942-4950-1	62-4942-4955-0	62-4942-4970-9	62-4942-4975-8
AS-0194-6119-8	CS-0406-7111-0	XF-6001-4158-4		

1.2. Recommended use and restrictions on use

Intended Use

Aerosol adhesive. Recommended for industrial and professional use.

Specific Use

hi-strength aerosol adhesive

Restrictions on use

Not applicable

1.3. Supplier's details

Company:	3M Canada Company
Division:	Industrial Adhesives and Tapes Division
Address:	1840 Oxford Street East, Post Office Box 5757, London, Ontario N6A 4T1
Telephone:	(800) 364-3577
Website:	www.3M.ca

1.4. Emergency telephone number

Medical Emergency Telephone:1-800-3M HELPS / 1800 364 3577

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Flammable Aerosol: Category 1.
Gas Under Pressure: Liquefied gas.
Serious Eye Damage/Irritation: Category 2B.

Reproductive Toxicity: Category 1B.
Simple Asphyxiant.
Specific Target Organ Toxicity (single exposure): Category 1.
Specific Target Organ Toxicity (single exposure): Category 3.

2.2. Label elements
Signal word
Danger

Symbols
Flame | Gas cylinder | Exclamation mark | Health Hazard |

Pictograms



Hazard statements
Extremely flammable aerosol. Contains gas under pressure; may explode if heated.
Causes eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May damage fertility or the unborn child. May displace oxygen and cause rapid suffocation.
Causes damage to organs: cardiovascular system |

Precautionary statements
General:
Keep out of reach of children.

Prevention:
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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. Use only outdoors or in a well-ventilated area. Wear protective gloves. Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling.

Response:
IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Specific treatment (see Notes to Physician on this label).

Storage:
Protect from sunlight. Do not expose to temperatures exceeding 50C/122F. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

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

Notes to Physician:
Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

2.3. Other hazards
None known.

8% of the mixture consists of ingredients of unknown acute oral toxicity.

8% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt	Common Name
Dimethyl ether	115-10-6	30 - 60 Trade Secret *	Methane, oxybis-
Methyl acetate	79-20-9	15 - 40 Trade Secret *	Acetic acid, methyl ester
Cyclohexane	110-82-7	7 - 13	Cyclohexane
Nonvolatile components	Trade Secret	1 - 10	Not Applicable
1,1-Difluoroethane	75-37-6	1 - 5 Trade Secret *	Ethane, 1,1-difluoro-
Pentane	109-66-0	1 - 5	Pentane
Toluene	108-88-3	< 0.2	No Data Available

Nonvolatile components is a non-hazardous Trade Secret material according to WHMIS criteria.

*The actual concentration of this ingredient has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. Get medical attention.

Skin Contact:
Wash with soap and water. 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

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects. 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. Unsuitable extinguishing media
None Determined

5.3. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode. Exposure to extreme heat can give rise to thermal decomposition.

Hazardous Decomposition or By-Products

Substance	Condition
Aldehydes	During Combustion
Hydrocarbons	During Combustion
Formaldehyde	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Fluoride	During Combustion
Irritant Vapours or Gases	During Combustion

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. 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 vapours, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapours 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
For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

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. Close cylinder. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. 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 breathe thermal decomposition products. Keep out of reach of children. 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. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (gloves, respirators, etc.) 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 oxidizing 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	C.A.S. No.	Agency	Limit type	Additional Comments
Toluene	108-88-3	ACGIH	TWA:20 ppm	
Pentane	109-66-0	ACGIH	TWA:1000 ppm	
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Dimethyl ether	115-10-6	AIHA	TWA:1880 mg/m3(1000 ppm)	
1,1-Difluoroethane	75-37-6	AIHA	TWA:2700 mg/m3(1000 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
For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines. 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:
Safety Glasses with side shields
Indirect Vented Goggles

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended: Polymer laminate

Respiratory protection

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:
For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use a positive pressure supplied-air respirator.
Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates
Half facepiece or full facepiece supplied-air respirator
Organic vapor cartridges 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	Gas
Specific Physical Form:	Aerosol
Colour	Colourless
Odour	Fruity Odour, Mild Solvent
Odour threshold	*No Data Available*
pH	*No Data Available*
Melting point/Freezing point	*Not Applicable*
Boiling point	*Not Applicable*
Flash Point	-41.1 ºC [*Test Method:*Tagliabue Closed Cup]
Evaporation rate	1.9 [*Ref Std:*ETHER=1]
Flammability	Flammable Aerosol: Category 1.
Flammable Limits(LEL)	*No Data Available*
Flammable Limits(UEL)	*No Data Available*
Vapour Pressure	[*Details:*Compressed gas]*Not Applicable*
Vapour Density and/or Relative Vapour Density	2.97 [*Ref Std:*AIR=1]
Density	0.726 g/ml
Relative density	0.726 [*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	*Not Applicable*
Volatile Organic Compounds	*No Data Available*
Percent volatile	*No Data Available*
VOC Less H2O & Exempt Solvents	<=55 % [*Test Method:*calculated per CARB title 2]
Molecular weight	*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 polymerization will not occur.

10.4. Conditions to avoid
Heat

10.5. Incompatible materials
Strong oxidizing agents

10.6. Hazardous decomposition products

Substance	**Condition**
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

Extreme heat arising from situations such as misuse or equipment failure can generate hydrogen fluoride as a decomposition product.

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 labeling, 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.

Eye Contact:
Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. 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.

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

Dimethyl ether	Inhalation-Gas (4 hours)	Rat	LC50 164,000 ppm
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
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
Pentane	Dermal	Rabbit	LD50 3,000 mg/kg
Pentane	Inhalation-Vapor (4 hours)	Rat	LC50 > 18 mg/l
Pentane	Ingestion	Rat	LD50 > 2,000 mg/kg
1,1-Difluoroethane	Inhalation-Gas (4 hours)	Rat	LC50 > 437,000 ppm
Nonvolatile components	Dermal	Rabbit	LD50 > 2,000 mg/kg
Nonvolatile components	Ingestion	Rat	LD50 > 5,000 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

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Methyl acetate	Rabbit	No significant irritation
Cyclohexane	Rabbit	Mild irritant
Pentane	Rabbit	Minimal irritation
Nonvolatile components	Professional judgement	No significant irritation
Toluene	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Methyl acetate	Rabbit	Moderate irritant
Cyclohexane	Rabbit	Mild irritant
Pentane	Rabbit	Mild irritant
Toluene	Rabbit	Moderate irritant

Skin Sensitization

Name	Species	Value
Methyl acetate	Human	Not classified
Pentane	Guinea pig	Not classified
Toluene	Guinea pig	Not classified

Respiratory Sensitization

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

Germ Cell Mutagenicity

Name	Route	Value

Dimethyl ether	In Vitro	Not mutagenic
Dimethyl ether	In vivo	Not mutagenic
Methyl acetate	In Vitro	Not mutagenic
Methyl acetate	In vivo	Not mutagenic
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
Pentane	In vivo	Not mutagenic
Pentane	In Vitro	Some positive data exist, but the data are not sufficient for classification
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
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Dimethyl ether	Inhalation	Rat	Not carcinogenic
1,1-Difluoroethane	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
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

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Dimethyl ether	Inhalation	Not classified for development	Rat	NOAEL 40,000 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
Pentane	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
Pentane	Inhalation	Not classified for development	Rat	NOAEL 30 mg/l	during organogenesis
1,1-Difluoroethane	Inhalation	Not classified for development	Rat	NOAEL 50,000 ppm	during organogenesis
Toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Dimethyl ether	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 10,000 ppm	30 minutes
Dimethyl ether	Inhalation	cardiac sensitization	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 100,000 ppm	5 minutes
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	
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	
Pentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	not available
Pentane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
Pentane	Inhalation	cardiac sensitization	Not classified	Dog	NOAEL Not available	not available
Pentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	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
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Dimethyl ether	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 25,000 ppm	2 years
Dimethyl ether	Inhalation	liver	Not classified	Rat	NOAEL 20,000 ppm	30 weeks
Methyl acetate	Inhalation	respiratory system	Some positive data exist, but the	Rat	NOAEL 1.1	28 days

			data are not sufficient for classification		mg/l	
Methyl acetate	Inhalation	endocrine system | hematopoietic system | liver | immune system | kidney and/or bladder	Not classified	Rat	NOAEL 6.1 mg/l	28 days
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
Pentane	Inhalation	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
Pentane	Inhalation	heart | skin | endocrine system | gastrointestinal tract | bone, teeth, nails, and/or hair | hematopoietic system | liver | immune system | muscles | nervous system | eyes | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days
1,1-Difluoroethane	Inhalation	hematopoietic system | kidney and/or bladder | respiratory system	Not classified	Rat	NOAEL 25,000 ppm	2 years
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	Not classified	Multiple	NOAEL	13 weeks

		bladder		animal species	2,500 mg/kg/day	
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

Aspiration Hazard

Name	Value
Cyclohexane	Aspiration hazard
Pentane	Aspiration hazard
Toluene	Aspiration hazard

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

SECTION 12: Ecological information

No data available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Facility must be capable of handling aerosol cans. Combustion products will include HF. Facility must be capable of handling halogenated materials. The facility should be equipped to handle gaseous waste. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

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.

SECTION 16: Other information

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.
Health: 3 **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.

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