Safety Data Sheet

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Document Group:	09-2094-2	**Version Number:**	3.00
Issue Date:	04/05/2026	**Supersedes Date:**	26/04/2021

This Safety Data Sheet has been prepared in accordance with the Malaysia Occupational Safety and Health (Chemical Classification, Labelling and Safety Data Sheets) Regulations 2013.

SECTION 1: Identification

1.1. Product identifier
3M™ Hi-Strength 90 Bulk Adhesive, Clear

Product Identification Numbers
62-4479-7536-8 62-4479-8532-6 62-4479-9532-5

1.2. Recommended use and restrictions on use

Recommended use
Adhesive, Industrial use

1.3. Supplier's details
ADDRESS: 3M Malaysia Sdn. Bhd., Level 8, Block F, Oasis Square, No.2, Jalan PJU 1A/7A, Ara Damansara 47301 Petaling, Jaya, Selangor
Telephone: 03-7884 2888
E Mail: 3mmyehsr@mmm.com
Website: www.3M.com.my

1.4. Emergency telephone number
+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Flammable Liquid: Category 2.
Serious Eye Damage/Irritation: Category 2.
Reproductive Toxicity: Category 1B.
Chronic Aquatic Toxicity: Category 2.

2.2. Label elements
Signal word
Danger

Symbols
Flame |Exclamation mark |Health Hazard |Environment |

Pictograms



Hazard Statements:

H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation.
H360	May damage fertility or the unborn child.
H411	Toxic 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.
P273	Avoid release to the environment.
P281	Use personal protective equipment as required.

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 attention.
P370 + P378	In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Disposal:

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

2.3. Other hazards

Aspiration hazard classification does not apply due to the kinematic viscosity of the product., May cause drowsiness or dizziness.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Acetone	67-64-1	25 - 35
Pentane	109-66-0	15 - 25
Cyclohexane	110-82-7	15 - 24
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	31393-98-3	5 - 22
Non-Volatile Components	Trade Secret	2 - 15
Isopentane	78-78-4	< 2
Cyclopentane	287-92-3	< 2
Toluene	108-88-3	< 1

Heptane	142-82-5	< 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:
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

Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness).

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
Aldehydes	During Combustion
Hydrocarbons	During Combustion
Methane	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Irritant Vapors or Gases	During Combustion
Ketones	During Combustion
Toxic Vapor, 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. 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 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. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

6.2. Environmental precautions
Avoid release to the environment. 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
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 authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. 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
For industrial/occupational use only. Not for consumer sale or use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/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 release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. 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. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. Keep container tightly closed. 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	A4: Not class. as human carcin, Ototoxicant
Toluene	108-88-3	Malaysia OELs	TWA(8 hours):188 mg/m3(50 ppm)	SKIN
Pentane (all isomers)	109-66-0	Malaysia OELs	TWA(8 hours):1770 mg/m3(600 ppm)	

Pentane, all isomers	109-66-0	ACGIH	TWA:1000 ppm	
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Cyclohexane	110-82-7	Malaysia OELs	TWA(8 hours):1030 mg/m3(300 ppm)	
Heptane	142-82-5	Malaysia OELs	TWA(8 hours):1640 mg/m3(400 ppm)	
Heptane, straight and branched isomers	142-82-5	ACGIH	TWA:200 ppm;STEL:400 ppm	Ototoxicant
Cyclopentane	287-92-3	ACGIH	TWA:1000 ppm	
Cyclopentane	287-92-3	Malaysia OELs	TWA(8 hours):1720 mg/m3(600 ppm)	
Acetone	67-64-1	ACGIH	TWA:250 ppm;STEL:500 ppm	A4: Not class. as human carcin
Acetone	67-64-1	Malaysia OELs	TWA(8 hours):1187 mg/m3(500 ppm)	
Pentane (all isomers)	78-78-4	Malaysia OELs	TWA(8 hours):1770 mg/m3(600 ppm)	
Pentane, all isomers	78-78-4	ACGIH	TWA:1000 ppm	

ACGIH : American Conference of Governmental Industrial Hygienists
CMRG : Chemical Manufacturer's Recommended Guidelines
Malaysia OELs : Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation 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:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors

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	Liquid
Color	Light Yellow
Odor	Mild Solvent
Odor threshold	*No Data Available*
pH	*Not Applicable*
Melting point/Freezing point	*Not Applicable*
Boiling point/Initial boiling point/Boiling range	36 ºC
Flash Point	-40 ºC [*Test Method:*Closed Cup]
Evaporation rate	28 [*Ref Std:*ETHER=1]
Flammability	Flammable Liquid: Category 2.
Flammable Limits(LEL)	1.6 % volume
Flammable Limits(UEL)	9.4 % volume
Vapor Pressure	<=500 mmHg [@ 18.5 ºC]
Relative Vapor Density	>=1 [*Ref Std:*AIR=1]
Density	0.77 g/ml
Relative Density	0.77 [*Ref Std:*WATER=1]
Water solubility	Nil
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Kinematic Viscosity	195 mm2/sec
Volatile Organic Compounds	<=608 g/l [*Details:*EU VOC content]
Percent volatile	70 - 80 % weight
VOC Less H2O & Exempt Solvents	<=531 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Molecular weight	*No Data Available*
Solids Content	20 - 30 %

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
Sparks and/or flames

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.

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:
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:
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 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.

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
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
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
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	Ingestion	Rat	LD50 > 2,000 mg/kg
Non-Volatile Components	Ingestion	similar compounds	LD50 estimated to be > 5,000 mg/kg
Non-Volatile Components	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
Isopentane	Dermal	Rabbit	LD50 3,000 mg/kg
Isopentane	Inhalation-Vapor (4 hours)	Rat	LC50 > 18 mg/l
Isopentane	Ingestion	Rat	LD50 > 2,000 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
Cyclopentane	Inhalation-Vapor (4 hours)	Rat	LC50 > 25.3 mg/l
Cyclopentane	Ingestion	Rat	LD50 > 5,000 mg/kg
Cyclopentane	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
Heptane	Dermal	similar compounds	LD50 > 2,000 mg/kg
Heptane	Inhalation-Vapor (4 hours)	similar compounds	LC50 > 33.5 mg/l
Heptane	Ingestion	similar compounds	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Acetone	Mouse	Minimal irritation
Pentane	Rabbit	Minimal irritation
Cyclohexane	Rabbit	Mild irritant
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	In vitro data	No significant irritation

Non-Volatile Components	similar compounds	No significant irritation
Isopentane	Rabbit	Minimal irritation
Toluene	Rabbit	Irritant
Cyclopentane	Rabbit	No significant irritation
Heptane	Professional judgement	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
Acetone	Rabbit	Severe irritant
Pentane	Rabbit	Mild irritant
Cyclohexane	Rabbit	Mild irritant
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	In vitro data	No significant irritation
Non-Volatile Components	Professional judgement	No significant irritation
Isopentane	Rabbit	Mild irritant
Toluene	Rabbit	Moderate irritant
Cyclopentane	Rabbit	Mild irritant
Heptane	similar compounds	Mild irritant

Sensitization:

Skin Sensitization

Name	Species	Value
Pentane	Guinea pig	Not classified
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	Multiple animal species	Not classified
Non-Volatile Components	similar compounds	Not classified
Isopentane	Guinea pig	Not classified
Toluene	Guinea pig	Not classified
Cyclopentane	similar compounds	Not classified
Heptane	similar compounds	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
Acetone	In vivo	Not mutagenic
Acetone	In Vitro	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
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	In Vitro	Not mutagenic
Non-Volatile Components	In Vitro	Not mutagenic
Isopentane	In vivo	Not mutagenic
Isopentane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic
Cyclopentane	In vivo	Not mutagenic
Cyclopentane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Heptane	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Acetone	Not Specified	Multiple animal species	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

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
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
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
Isopentane	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	during organogenesis
Isopentane	Inhalation	Not classified for development	Rat	NOAEL 30 mg/l	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
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 mg/l	6 hours
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
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
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	
Isopentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	not available
Isopentane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	NOAEL Not available	not available
Isopentane	Inhalation	cardiac sensitization	Not classified	Dog	NOAEL Not available	not available
Isopentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	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
Cyclopentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Rat	NOAEL Not available	
Cyclopentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	NOAEL Not available	
Heptane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Heptane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for	similar health	NOAEL Not available	

			classification	hazards		
Heptane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	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	Not classified	Rat	NOAEL 45 mg/l	8 weeks
Acetone	Inhalation	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	Not classified	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Acetone	Ingestion	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Pentane	Inhalation	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
Pentane	Inhalation	heart	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	skin	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	endocrine system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	bone, teeth, nails, and/or hair	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	liver	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	immune system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	muscles	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	nervous system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	eyes	Not classified	Rat	NOAEL 20 mg/l	13 weeks

Pentane	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Pentane	Inhalation	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
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
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	Ingestion	heart	Not classified	Rat	NOAEL 331 mg/kg/day	90 days
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	Ingestion	gastrointestinal tract	Not classified	Rat	NOAEL 331 mg/kg/day	90 days
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 331 mg/kg/day	90 days
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	Ingestion	liver	Not classified	Rat	NOAEL 331 mg/kg/day	90 days
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	Ingestion	nervous system	Not classified	Rat	NOAEL 331 mg/kg/day	90 days
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	Ingestion	eyes	Not classified	Rat	NOAEL 331 mg/kg/day	90 days
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 331 mg/kg/day	90 days
Isopentane	Inhalation	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
Isopentane	Inhalation	heart	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Inhalation	skin	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Inhalation	endocrine system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 20	13 weeks

					mg/l	
Isopentane	Inhalation	bone, teeth, nails, and/or hair	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Inhalation	liver	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Inhalation	immune system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Inhalation	muscles	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Inhalation	nervous system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Inhalation	eyes	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Inhalation	respiratory system	Not classified	Rat	NOAEL 20 mg/l	13 weeks
Isopentane	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 2,000 mg/kg/day	28 days
Toluene	Inhalation	auditory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	eyes	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	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	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	liver	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	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	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	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	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	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	28 days

					mg/kg/day	
Toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks
Cyclopentane	Inhalation	liver	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	heart	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	skin	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	endocrine system	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	bone, teeth, nails, and/or hair	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	immune system	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	muscles	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	nervous system	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	eyes	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	respiratory system	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Inhalation	vascular system	Not classified	Rat	NOAEL 20.2 mg/l	13 weeks
Cyclopentane	Ingestion	peripheral nervous system	Not classified	Rat	NOAEL 800 mg/kg/day	8 weeks
Cyclopentane	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 500 mg/kg/day	4 weeks
Heptane	Inhalation	nervous system	Not classified	Rat	NOAEL 6.15 mg/l	30 weeks
Heptane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 12.5 mg/l	16 weeks
Heptane	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 12.2 mg/l	26 weeks
Heptane	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 12.2 mg/l	26 weeks

Aspiration Hazard

Name	Value
Pentane	Aspiration hazard
Cyclohexane	Aspiration hazard
Isopentane	Aspiration hazard
Toluene	Aspiration hazard
Cyclopentane	Aspiration hazard
Heptane	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 labeling, 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:
Not chronically toxic to aquatic life by GHS criteria.

No product test data available

Material	Cas #	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
Pentane	109-66-0	Green algae	Experimental	72 hours	EC50	10.7 mg/l
Pentane	109-66-0	Rainbow Trout	Experimental	96 hours	LC50	4.26 mg/l
Pentane	109-66-0	Water flea	Experimental	48 hours	EC50	2.7 mg/l
Pentane	109-66-0	Green algae	Experimental	72 hours	NOEC	2.04 mg/l
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
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	31393-98-3	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	31393-98-3	Water flea	Endpoint not reached	21 days	EL10	>100 mg/l
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	31393-98-3	Activated sludge	Experimental	3 hours	NOEC	1,000 mg/l
Non-Volatile Components	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Cyclopentane	287-92-3	Water flea	Experimental	48 hours	EC50	10.5 mg/l
Isopentane	78-78-4	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
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)
Heptane	142-82-5	Water flea	Experimental	48 hours	EC50	1.5 mg/l
Heptane	142-82-5	Water flea	Estimated	21 days	NOEC	0.17 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Acetone	67-64-1	Experimental Biodegradation	28 days	Biological Oxygen Demand	78 %BOD/ThOD	OECD 301D - Closed Bottle Test
Acetone	67-64-1	Experimental Photolysis		Photolytic half-life (in air)	147 days (t 1/2)	
Pentane	109-66-0	Experimental Biodegradation	28 days	Biological Oxygen Demand	87 %BOD/ThOD	OECD 301F - Manometric Respiro
Pentane	109-66-0	Experimental Photolysis		Photolytic half-life (in air)	8.07 days (t 1/2)	
Cyclohexane	110-82-7	Experimental Biodegradation	28 days	Biological Oxygen Demand	77 %BOD/ThOD	OECD 301F - Manometric Respiro
Cyclohexane	110-82-7	Experimental Photolysis		Photolytic half-life (in air)	4.3 days (t 1/2)	
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	31393-98-3	Experimental Biodegradation	28 days	Biological Oxygen Demand	4 %BOD/ThOD	OECD 301D - Closed Bottle Test
Non-Volatile Components	Trade Secret	Data not availbl-insufficient	N/A	N/A	N/A	N/A
Cyclopentane	287-92-3	Experimental Biodegradation	28 days	Biological Oxygen Demand	0 %BOD/ThOD	OECD 301F - Manometric Respiro
Cyclopentane	287-92-3	Experimental Photolysis		Photolytic half-life (in air)	6.11 days (t 1/2)	
Isopentane	78-78-4	Experimental Biodegradation	28 days	Biological Oxygen Demand	71.43 %BOD/ThOD	
Isopentane	78-78-4	Experimental Photolysis		Photolytic half-life (in air)	8.11 days (t 1/2)	
Toluene	108-88-3	Experimental Biodegradation	20 days	Biological Oxygen Demand	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)	
Heptane	142-82-5	Experimental Biodegradation	28 days	Biological Oxygen Demand	101 %BOD/ThOD	OECD 301C - MITI (I)
Heptane	142-82-5	Experimental Photolysis		Photolytic half-life (in air)	4.24 days (t 1/2)	

12.3. Bioaccumulative potential

Material	CAS No.	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 of Octanol/H2O part. coeff	-0.24	
Pentane	109-66-0	Estimated Bioconcentration		Bioaccumulation Factor	26	
Cyclohexane	110-82-7	Experimental BCF - Fish	56 days	Bioaccumulation Factor	129	OECD305-Bioconcentration

Cyclohexane	110-82-7	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	3.44	
Bicyclo[3.1.1]Hept-2-Ene,2,6,6-Trimethyl-,Polymer With 6,6-Dimethyl-2-Methylenebicyclo[3.1.1]Heptane	31393-98-3	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	>7.41	EC A.8 Partition Coefficient
Non-Volatile Components	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Cyclopentane	287-92-3	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	3.00	
Isopentane	78-78-4	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	2.3	
Toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulation Factor	90	
Toluene	108-88-3	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	2.73	
Heptane	142-82-5	Estimated Bioconcentration		Bioaccumulation Factor	105	

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

According to the Environmental Quality (Scheduled Wastes) Regulations 2005, scheduled waste has to be sent to a prescribed premise for recycling, treatment or disposal. Please approach Kualiti Alam for proper schedule waste classification and disposal.

SECTION 14: Transport Information

Marine Transport (IMDG)

UN Number:UN1133
Proper Shipping Name:ADHESIVES CONTAINING FLAMMABLE LIQUID
Technical Name: None assigned.
Hazard Class/Division:3
Subsidiary Risk: None assigned.
Packing Group:II
Limited Quantity: None assigned.
Marine Pollutant: None assigned.
Marine Pollutant Technical Name: None assigned.
Other Dangerous Goods Descriptions:
None assigned.

Air Transport (IATA)

UN Number:UN1133

Proper Shipping Name:ADHESIVES CONTAINING FLAMMABLE LIQUID
Technical Name: None assigned.
Hazard Class/Division:3
Subsidiary Risk: None assigned.
Packing Group:II
Limited Quantity: None assigned.
Marine Pollutant: None assigned.
Marine Pollutant Technical Name: None assigned.
Other Dangerous Goods Descriptions:
None assigned.

Transportation classifications are provided as a customer service. As for shipping, YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. 3M's transportation classifications are based on product formulation, packaging, 3M policies and 3M's understanding of applicable current regulations. 3M does not guarantee the accuracy of this classification information. This information applies only to transportation classification and not the packaging, labeling or marking requirements. The above information is only for reference. If you are shipping by air or ocean, YOU are advised to check & meet applicable regulatory requirements.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status
Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

SECTION 16: Other information

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 Malaysia, you are responsible for all applicable regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration/notification.

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