

Safety Data Sheet

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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[™] Nitrile High Performance Plastic Adhesive 1099L

Product Identification Numbers

62-1359-5530-0 62-1359-8535-6 62-1359-9535-5

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, Java, Selangor

Telephone: 03-7884 2888

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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.

Specific Target Organ Toxicity (repeated exposure): Category 2.

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.

H373 May cause damage to organs through prolonged or repeated exposure:

nervous system sensory organs

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

General:

P102 Keep out of reach of children.

P101 If medical advice is needed, have product container or label at hand.

Prevention:

P201 Obtain special instructions before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P280B Wear protective gloves and eye/face protection.
P281 Use personal protective equipment as required.

P273 Avoid release to the environment.

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.

P370 + P378G In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry

chemical or carbon dioxide to extinguish.

Storage:

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

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with applicable

local/regional/national/international regulations.

2.3. Other hazards

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	45 - 55
Methyl Ethyl Ketone	78-93-3	20 - 30
Acrylonitrile-Butadiene Polymer	9003-18-3	10 - 20
Ammonia, o-Cresol, Formaldehyde, Phenol	55185-45-0	5 - 10
Resin		
p-tert-Butylphenol-Formaldehyde Resin	25085-50-1	5 - 10
Salicylic Acid	69-72-7	< 3
toluene	108-88-3	< 3
Zinc Oxide	1314-13-2	< 2
Phenol	108-95-2	< 0.3
Benzenamine, N-Phenyl-, Reaction Products	68411-46-1	< 0.24
With 2,4,4-Trimethylpentene		
o-Cresol	95-48-7	< 0.2
Formaldehyde	50-00-0	< 0.06

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). 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

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	<u>Condition</u>
Hydrocarbons	During Combustion
Formaldehyde	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

Oxides of Nitrogen

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. 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. 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	SKIN
			ppm)	
Phenol	108-95-2	ACGIH	TWA:5 ppm	A4: Not class. as human
				carcin, Danger of
				cutaneous absorption
Phenol	108-95-2	Malaysia OELs	TWA(8 hours):19 mg/m3(5	SKIN
			ppm)	
Zinc Oxide	1314-13-2	ACGIH	TWA(respirable fraction):2	
			mg/m3;STEL(respirable	
			fraction):10 mg/m3	
Zinc Oxide	1314-13-2	Malaysia OELs	TWA(as fume)(8 hours):5	
			mg/m3;TWA(as dust)(8	
			hours):10 mg/m3	
Formaldehyde	50-00-0	ACGIH	TWA:0.1 ppm;STEL:0.3 ppm	A1: Confirmed human
-				carcin.,
				Dermal/Respiratory
				Sensitizer
Formaldehyde	50-00-0	Malaysia OELs	CEIL:0.37 mg/m3(0.3 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)	
Methyl Ethyl Ketone	78-93-3	ACGIH	TWA:200 ppm;STEL:300 ppm	
Methyl Ethyl Ketone	78-93-3	Malaysia OELs	TWA(8 hours):590	
			mg/m3(200 ppm)	
CRESOLS (ORTHO-; META-;	95-48-7	Malaysia OELs	TWA(8 hours):22 mg/m3(5	SKIN
PARA-)			ppm)	
o-Cresol	95-48-7	ACGIH	TWA(inhalable fraction and	A4: Not class. as human
			vapor):20 mg/m3	carcin, Danger of
				cutaneous absorption

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:

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 and particulates Organic vapor respirators 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	Pink, Tan, White	
Odor	Solvent	
Odor threshold	No Data Available	
pH	No Data Available	
Melting point/Freezing point	Not Applicable	
Boiling point/Initial boiling point/Boiling range	>=56 °C [Details: Acetone]	
Flash Point	-20 °C [Test Method:Closed Cup] [Details:Acetone]	
Evaporation rate	1.9 [Ref Std:ETHER=1]	
Flammability (solid, gas)	Not Applicable	
Flammable Limits(LEL)	1.8 % volume [Details: Acetone]	
Flammable Limits(UEL)	12.8 % volume [Details: Acetone]	
Vapor Pressure	<=24,664.6 Pa [@ 20 °C]	
Vapor Density and/or Relative Vapor Density	2 [<i>Ref Std</i> :AIR=1]	
Density	0.86 g/ml	
Relative Density	0.86 [Ref Std:WATER=1]	
Water solubility	Slight (less than 10%)	
Solubility- non-water	No Data Available	
Partition coefficient: n-octanol/ water	No Data Available	
Autoignition temperature	No Data Available	
Decomposition temperature	No Data Available	
Viscosity/Kinematic Viscosity	200 - 1,000 mPa-s [@ 27 °C]	
Volatile Organic Compounds		
Percent volatile		
VOC Less H2O & Exempt Solvents	<=454 g/l [Test Method:calculated SCAQMD rule 443.1]	
Molecular weight	No Data Available	
Solids Content	15 - 35 % weight	

Nanoparticles

This material does not contain nanoparticles.

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	10: Stability and	raactivity
	IV. Diability and	licactivity

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. Allergic Skin Reaction (non-photo induced) in sensitive people: 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 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.

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 odors and/or 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/or 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
Methyl Ethyl Ketone	Dermal	Rabbit	LD50 > 8,050 mg/kg
Methyl Ethyl Ketone	Inhalation- Vapor (4 hours)	Rat	LC50 34.5 mg/l
Methyl Ethyl Ketone	Ingestion	Rat	LD50 2,737 mg/kg
Acrylonitrile-Butadiene Polymer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile-Butadiene Polymer	Ingestion	Rat	LD50 > 30,000 mg/kg
p-tert-Butylphenol-Formaldehyde Resin	Dermal		LD50 estimated to be > 5,000 mg/kg
p-tert-Butylphenol-Formaldehyde Resin	Ingestion	Rat	LD50 5,660 mg/kg
Ammonia, o-Cresol, Formaldehyde, Phenol Resin	Dermal		LD50 estimated to be > 5,000 mg/kg
Ammonia, o-Cresol, Formaldehyde, Phenol Resin	Ingestion		LD50 estimated to be 2,000 - 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
Salicylic Acid	Dermal	Rat	LD50 > 2,000 mg/kg
Salicylic Acid	Ingestion	Rat	LD50 891 mg/kg
Zinc Oxide	Dermal		LD50 estimated to be > 5,000 mg/kg
Zinc Oxide	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 5.7 mg/l
Zinc Oxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Phenol	Inhalation- Vapor		LC50 estimated to be 2 - 10 mg/l

Phenol	Dermal	Rat	LD50 670 mg/kg
Phenol	Ingestion	Rat	LD50 340 mg/kg
Benzenamine, N-Phenyl-, Reaction Products With 2,4,4- Trimethylpentene	Dermal	Rat	LD50 > 2,000 mg/kg
Benzenamine, N-Phenyl-, Reaction Products With 2,4,4- Trimethylpentene	Ingestion	Rat	LD50 > 5,000 mg/kg
o-Cresol	Dermal	Rabbit	LD50 890 mg/kg
o-Cresol	Inhalation- Vapor (4 hours)	Rat	LC50 > 24.5 mg/l
o-Cresol	Ingestion	Rat	LD50 121 mg/kg
Formaldehyde	Dermal	Rabbit	LD50 270 mg/kg
Formaldehyde	Inhalation- Gas (4 hours)	Rat	LC50 470 ppm
Formaldehyde	Ingestion	Rat	LD50 800 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Acetone	Mouse	Minimal irritation
Methyl Ethyl Ketone	Rabbit	Minimal irritation
Acrylonitrile-Butadiene Polymer	Professio	No significant irritation
	nal	
	judgemen	
	t	
toluene	Rabbit	Irritant
Salicylic Acid	Rabbit	No significant irritation
Zinc Oxide	Human	No significant irritation
	and	
	animal	
Phenol	Rat	Corrosive
o-Cresol	Rabbit	Corrosive
Formaldehyde	official	Corrosive
	classificat	
	ion	

Serious Eve Damage/Irritation

Name	Species	Value
Acetone	Rabbit	Severe irritant
Methyl Ethyl Ketone	Rabbit	Severe irritant
Acrylonitrile-Butadiene Polymer	Professio	No significant irritation
	nal	
	judgemen	
	t	
toluene	Rabbit	Moderate irritant
Salicylic Acid	Rabbit	Corrosive
Zinc Oxide	Rabbit	Mild irritant
Phenol	Rabbit	Corrosive
o-Cresol	Rabbit	Corrosive
Formaldehyde	official	Corrosive
	classificat	
	ion	

Sensitization:

Skin Sensitization

Name	Species	Value
p-tert-Butylphenol-Formaldehyde Resin	Human	Some positive data exist, but the data are not sufficient for classification
toluene	Guinea	Not classified

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	pig	
Salicylic Acid	Mouse	Not classified
Zinc Oxide	Guinea	Not classified
	pig	
Phenol	Guinea	Not classified
	pig	
Formaldehyde	Guinea	Sensitizing
	pig	

Photosensitization

Name	Species	Value
Salicylic Acid	Mouse	Not sensitizing

Respiratory Sensitization

Name	Species	Value
Formaldehyde	Human	Some positive data exist, but 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		
Methyl Ethyl Ketone	In Vitro	Not mutagenic		
toluene	In Vitro	Not mutagenic		
toluene	In vivo	Not mutagenic		
Salicylic Acid	In Vitro	Not mutagenic		
Salicylic Acid	In vivo	Not mutagenic		
Zinc Oxide	In Vitro	Some positive data exist, but the data are not sufficient for classification		
Zinc Oxide	In vivo	Some positive data exist, but the data are not sufficient for classification		
Phenol	In Vitro	Some positive data exist, but the data are not sufficient for classification		
Phenol	In vivo	Some positive data exist, but the data are not sufficient for classification		
o-Cresol	In vivo	Not mutagenic		
o-Cresol	In Vitro	Some positive data exist, but the data are not sufficient for classification		
Formaldehyde	In Vitro	Some positive data exist, but the data are not sufficient for classification		
Formaldehyde	In vivo	Mutagenic		

Carcinogenicity

Name	Route	Species	Value
Acetone	Not Specified	Multiple animal species	Not carcinogenic
Methyl Ethyl Ketone	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
Phenol	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Phenol	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
o-Cresol	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification

o-Cresol	Ingestion	Mouse	Some positive data exist, but the data are not sufficient for classification
			Sufficient for classification
Formaldehyde	Not	Human	Carcinogenic
	Specified	and	
		animal	

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
Methyl Ethyl Ketone	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
Salicylic Acid	Ingestion	Toxic to development	Rat	NOAEL 75 mg/kg/day	during organogenesis
Zinc Oxide	Ingestion	Not classified for reproduction and/or development	Multiple animal species	NOAEL 125 mg/kg/day	premating & during gestation
Phenol	Ingestion	Not classified for female reproduction	Rat	NOAEL 321 mg/kg/day	2 generation
Phenol	Ingestion	Not classified for male reproduction	Rat	NOAEL 321 mg/kg/day	2 generation
Phenol	Ingestion	Not classified for development	Rat	NOAEL 120 mg/kg/day	during organogenesis
o-Cresol	Ingestion	Not classified for female reproduction	Rat	NOAEL 450 mg/kg/day	2 generation
o-Cresol	Ingestion	Not classified for male reproduction	Rat	NOAEL 450 mg/kg/day	2 generation
o-Cresol	Ingestion	Not classified for development	Rat	NOAEL 175 mg/kg/day	2 generation
Formaldehyde	Ingestion	Not classified for male reproduction	Rat	NOAEL 100 mg/kg	not applicable
Formaldehyde	Inhalation	Not classified for development	Rat	NOAEL 10 ppm	during gestation

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
Methyl Ethyl Ketone	Inhalation	central nervous	May cause drowsiness or	official	NOAEL Not	

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					•	
		system depression	dizziness	classifica tion	available	
Methyl Ethyl Ketone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Methyl Ethyl Ketone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
Methyl Ethyl Ketone	Ingestion	liver	Not classified	Rat	NOAEL Not available	not applicable
Methyl Ethyl Ketone	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
Phenol	Dermal	hematoppoitic system	Causes damage to organs	Rat	LOAEL 108 mg/kg	not available
Phenol	Dermal	heart nervous system kidney and/or bladder	Causes damage to organs	Rat	LOAEL 107 mg/kg	24 hours
Phenol	Dermal	liver	Not classified	Human	NOAEL Not available	not available
Phenol	Inhalation	respiratory irritation	May cause respiratory irritation	Multiple animal species	NOAEL Not available	not available
Phenol	Ingestion	kidney and/or bladder	Causes damage to organs	Rat	NOAEL 120 mg/kg/day	not applicable
Phenol	Ingestion	respiratory system	Causes damage to organs	Human	NOAEL not available	poisoning and/or abuse
Phenol	Ingestion	endocrine system liver	Not classified	Rat	NOAEL 224 mg/kg	not applicable
Phenol	Ingestion	heart	Not classified	Human	NOAEL Not available	poisoning and/or abuse
o-Cresol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
o-Cresol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Rat	LOAEL 68 mg/kg	
Formaldehyde	Inhalation	respiratory system	Causes damage to organs	Rat	LOAEL 128 ppm	6 hours
Formaldehyde	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	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 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	13 weeks

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					2,500 mg/kg/day	
Acetone	Ingestion	hematopoietic	Not classified	Rat	NOAEL 200	13 weeks
		system			mg/kg/day	
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
Methyl Ethyl Ketone	Dermal	nervous system	Not classified	Guinea pig	NOAEL Not available	31 weeks
Methyl Ethyl Ketone	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
Methyl Ethyl Ketone	Ingestion	liver	Not classified	Rat	NOAEL Not available	7 days
Methyl Ethyl Ketone	Ingestion	nervous system	Not classified	Rat	NOAEL 173 mg/kg/day	90 days
toluene	Inhalation	auditory system eyes olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
toluene	Inhalation	nervous system	May cause damage to organs though 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	28 days

. 1			1	1	mg/kg/day	
toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks
Salicylic Acid	Ingestion	liver	Not classified	Rat	NOAEL 500 mg/kg/day	3 days
Zinc Oxide	Ingestion	nervous system	Not classified	Rat	NOAEL 600 mg/kg/day	10 days
Zinc Oxide	Ingestion	endocrine system hematopoietic system kidney and/or bladder	Not classified	Other	NOAEL 500 mg/kg/day	6 months
Phenol	Dermal	nervous system	May cause damage to organs though prolonged or repeated exposure	Rabbit	LOAEL 260 mg/kg/day	18 days
Phenol	Inhalation	heart liver kidney and/or bladder respiratory system	Causes damage to organs through prolonged or repeated exposure	Guinea pig	LOAEL 0.1 mg/l	41 days
Phenol	Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Multiple animal species	LOAEL 0.1 mg/l	14 days
Phenol	Inhalation	hematopoietic system	Not classified	Human	NOAEL Not available	occupational exposure
Phenol	Inhalation	immune system	Not classified	Rat	NOAEL 0.1 mg/l	2 weeks
Phenol	Ingestion	kidney and/or bladder	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 12 mg/kg/day	14 days
Phenol	Ingestion	hematopoietic system	Causes damage to organs through prolonged or repeated exposure	Mouse	LOAEL 1.8 mg/kg/day	28 days
Phenol	Ingestion	nervous system	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 308 mg/kg/day	13 weeks
Phenol	Ingestion	liver	Not classified	Rat	NOAEL 40 mg/kg/day	14 days
Phenol	Ingestion	respiratory system	Not classified	Rat	LOAEL 40 mg/kg/day	14 days
Phenol	Ingestion	immune system	Not classified	Mouse	NOAEL 1.8 mg/kg/day	28 days
Phenol	Ingestion	endocrine system	Not classified	Rat	NOAEL 120 mg/kg/day	14 days
Phenol	Ingestion	skin bone, teeth, nails, and/or hair	Not classified	Multiple animal species	NOAEL 1,204 mg/kg/day	103 weeks
o-Cresol	Ingestion	nervous system	Not classified	Rat	NOAEL 600 mg/kg/day	90 days
o-Cresol	Ingestion	hematopoietic system liver immune system kidney and/or bladder	Not classified	Rat	NOAEL 2,024 mg/kg/day	90 days
Formaldehyde	Dermal	respiratory system	Not classified	Mouse	NOAEL 80 mg/kg/day	60 weeks
Formaldehyde	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	NOAEL 0.3	28 months
Formaldehyde	Inhalation	liver	Not classified	Rat	NOAEL 20 ppm	13 weeks
Formaldehyde	Inhalation	hematopoietic system	Not classified	Mouse	NOAEL 15 ppm	3 weeks
Formaldehyde	Inhalation	nervous system	Not classified	Mouse	NOAEL 10 ppm	13 weeks
Formaldehyde	Inhalation	endocrine system immune system muscles kidney and/or bladder	Not classified	Rat	NOAEL 15 ppm	28 months
Formaldehyde	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 15 ppm	2 years
Formaldehyde	Inhalation	eyes vascular system	Not classified	Rat	NOAEL 14.3 ppm	2 years

Formaldehyde	Inhalation	heart	Not classified	Mouse	NOAEL 14.3 ppm	2 years
Formaldehyde	Ingestion	liver	Not classified	Rat	NOAEL 300 mg/kg/day	2 years
Formaldehyde	Ingestion	immune system	Not classified	Rat	NOAEL 20 mg/kg/day	4 weeks
Formaldehyde	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 15 mg/kg/day	24 months
Formaldehyde	Ingestion	nervous system	Not classified	Rat	NOAEL 109 mg/kg/day	2 years
Formaldehyde	Ingestion	heart endocrine system hematopoietic system respiratory system vascular system	Not classified	Rat	NOAEL 300 mg/kg/day	2 years
Formaldehyde	Ingestion	skin muscles eyes	Not classified	Rat	NOAEL 109 mg/kg/day	2 years

Aspiration Hazard

Name	Value
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

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:

GHS Chronic 2: Toxic to aquatic life with long lasting effects

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Acetone	67-64-1	Algae other	Experimental	96 hours	EC50	11,493 mg/l
Acetone	67-64-1	Bacteria	Experimental	16 hours	NOEC	1,700 mg/l
Acetone	67-64-1	Crustecea other	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
Methyl Ethyl Ketone	78-93-3	Activated sludge	Experimental	12 hours	IC50	1,873 mg/l
Methyl Ethyl Ketone	78-93-3	Bacteria	Experimental	16 hours	NOEC	1,150 mg/l
Methyl Ethyl Ketone	78-93-3	Fathead Minnow	Experimental	96 hours	LC50	2,993 mg/l
Methyl Ethyl Ketone	78-93-3	Green algae	Experimental	96 hours	EC50	2,029 mg/l

Methyl Ethyl	78-93-3	Water flea	Experimental	48 hours	EC50	308 mg/l
Ketone	76 75 5	Water fied	Experimental	40 nours	Leso	300 mg/1
Methyl Ethyl	78-93-3	Green Algae	Experimental	96 hours	EC10	1,289 mg/l
Ketone			F			, , , ,
Methyl Ethyl	78-93-3	Water flea	Experimental	21 days	NOEC	100 mg/l
Ketone			1			
Acrylonitrile-	9003-18-3		Data not			N/A
Butadiene			available or			
Polymer			insufficient for			
			classification			
Ammonia, o-	55185-45-0		Data not			N/A
Cresol,			available or			
Formaldehyde,			insufficient for			
Phenol Resin			classification			
p-tert-	25085-50-1		Data not			N/A
Butylphenol-			available or			
Formaldehyde			insufficient for			
Resin	69-72-7	A 4' 4 1	classification	2.1	ECCO	2 200 //
Salicylic Acid	09-72-7	Activated sludge	Experimental	3 hours	EC50	>3,200 mg/l
Salicylic Acid	69-72-7	Bacteria	Experimental	18 hours	EC10	465 mg/l
Salicylic Acid	69-72-7	Green algae	Experimental	72 hours	EC50	>100 mg/l
Salicylic Acid	69-72-7	Medaka	Experimental	96 hours	LC50	>100 mg/l
Salicylic Acid	69-72-7	Water flea	Experimental	48 hours	EC50	870 mg/l
Salicylic Acid	69-72-7	Water flea	Experimental	21 days	NOEC	10 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	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	Experimental	12 hours	IC50	292 mg/l
		sludge	F			8
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)
Zinc Oxide	1314-13-2	Activated	Estimated	3 hours	EC50	6.5 mg/l
Zinc Oxide	1314-13-2	Sludge Green Algae	Estimated	72 hours	EC50	0.052 mg/l
Zinc Oxide	1314-13-2	Rainbow Trout	Estimated	96 hours	LC50	0.032 mg/l
Zinc Oxide	1314-13-2	Water flea	Estimated	48 hours	EC50	0.07 mg/l
Zinc Oxide	1314-13-2	Green Algae	Estimated	72 hours	NOEC	0.006 mg/l
Zinc Oxide	1314-13-2	Water flea	Estimated	7 days	NOEC	0.02 mg/l
Phenol	108-95-2	Bacteria	Experimental	24 hours	IC50	21 mg/l
Phenol	108-95-2	Green algae	Experimental	96 hours	EC50	61.1 mg/l
Phenol	108-95-2	Rainbow Trout	Experimental	96 hours	LC50	8.9 mg/l
Phenol	108-95-2	Water flea	Experimental	48 hours	EC50	3.1 mg/l
Phenol	108-95-2	Fish other	Experimental	60 days	NOEC	0.077 mg/l
1 1101101	1100-93-2	I ISH OHIEL	Lybermiemai	100 days	PAOEC	[0.077 IIIg/I

Phenol	108-95-2	Water flea	Experimental	16 days	NOEC	0.16 mg/l
Benzenamine,	68411-46-1	Activated	Experimental	3 hours	EC50	>100 mg/l
N-Phenyl-,		sludge	F			
Reaction						
Products With						
2,4,4-						
Trimethylpente						
ne						
Benzenamine,	68411-46-1	Green algae	Experimental	72 hours	EC50	>100 mg/l
N-Phenyl-,						
Reaction						
Products With						
2,4,4-						
Trimethylpente ne						
Benzenamine,	68411-46-1	Water flea	Experimental	24 hours	EC50	0.82 mg/l
N-Phenyl-,	00411-40-1	water fiea	Experimental	24 Hours	ECSO	0.62 mg/1
Reaction						
Products With						
2,4,4-						
Trimethylpente						
ne						
Benzenamine,	68411-46-1	Zebra Fish	Experimental	96 hours	LC50	>71 mg/l
N-Phenyl-,						
Reaction						
Products With						
2,4,4-						
Trimethylpente ne						
Benzenamine,	68411-46-1	Green algae	Experimental	72 hours	NOEC	10 mg/l
N-Phenyl-,	00411 40 1	Green argue	Experimentar	72 Hours	TOLE	10 mg/1
Reaction						
Products With						
2,4,4-						
Trimethylpente						
ne						
Benzenamine,	68411-46-1	Water flea	Experimental	21 days	EC10	1.69 mg/l
N-Phenyl-,						
Reaction						
Products With 2,4,4-						
Trimethylpente						
ne						
o-Cresol	95-48-7	Activated	Experimental	5 days	EC50	940 mg/l
	,	sludge				7
o-Cresol	95-48-7	Bacteria	Experimental	16 hours	NOEC	33 mg/l
o-Cresol	95-48-7	Fish other	Experimental	96 hours	LC50	6.2 mg/l
o-Cresol	95-48-7	Green Algae	Experimental	96 hours	EC50	65 mg/l
o-Cresol	95-48-7	Water flea	Experimental	48 hours	LC50	9.6 mg/l
o-Cresol	95-48-7	Fathead	Estimated	32 days	NOEC	1.35 mg/l
		Minnow				
o-Cresol	95-48-7	Water flea	Estimated	21 days	NOEC	1 mg/l
o-Cresol	95-48-7	Algae	Experimental	96 hours	NOEC	40 mg/l
Formaldehyde	50-00-0	Activated	Experimental	3 hours	IC50	20.4 mg/l
		sludge	1		1	

Formaldehyde	50-00-0	Fish other	Experimental	96 hours	LC50	6.7 mg/l
Formaldehyde	50-00-0	Green algae	Experimental	72 hours	EC50	4.89 mg/l
Formaldehyde	50-00-0	Water flea	Experimental	48 hours	EC50	5.8 mg/l
Formaldehyde	50-00-0	Medaka	Experimental	28 days	NOEC	>=48 mg/l
Formaldehyde	50-00-0	Water flea	Experimental	21 days	NOEC	>=6.4 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Acetone	67-64-1	Experimental Photolysis		Photolytic half- life (in air)	147 days (t 1/2)	Non-standard method
Acetone	67-64-1	Experimental Biodegradation	28 days	Biological Oxygen Demand	78 % weight	OECD 301D - Closed Bottle Test
Methyl Ethyl Ketone	78-93-3	Experimental Biodegradation	28 days	Biological Oxygen Demand	98 % BOD/ThBOD	OECD 301D - Closed Bottle Test
Acrylonitrile- Butadiene Polymer	9003-18-3	Data not availbl-insufficient			N/A	
Ammonia, o- Cresol, Formaldehyde, Phenol Resin	55185-45-0	Data not availbl- insufficient			N/A	
p-tert- Butylphenol- Formaldehyde Resin	25085-50-1	Experimental Biodegradation	28 days	Carbon dioxide evolution	0 %CO2 evolution/THC O2 evolution	
Salicylic Acid	69-72-7	Experimental Biodegradation	14 days	Biological Oxygen Demand	88.1 % BOD/ThBOD	OECD 301C - MITI (I)
toluene	108-88-3	Experimental Photolysis		Photolytic half- life (in air)	5.2 days (t 1/2)	
toluene	108-88-3	Experimental Biodegradation	20 days	Biological Oxygen Demand	80 % BOD/ThBOD	APHA Std Meth Water/Wastewater
Zinc Oxide	1314-13-2	Data not availbl-insufficient			N/A	
Phenol	108-95-2	Experimental Biodegradation	100 hours	Biological Oxygen Demand	62 % BOD/ThBOD	OECD 301C - MITI (I)
Benzenamine, N-Phenyl-, Reaction Products With 2,4,4- Trimethylpente ne	68411-46-1	Experimental Biodegradation	28 days	Carbon dioxide evolution	<=1 % weight	OECD 301B - Mod. Sturm or CO2
o-Cresol	95-48-7	Experimental Biodegradation	20 days	Biological Oxygen Demand	86 % BOD/ThBOD	Non-standard method
Formaldehyde	50-00-0	Experimental Photolysis		Photolytic half- life(in water)	1-2 hours (t 1/2)	Non-standard method

Formaldehyde	50-00-0	Experimental	28 days	Dissolv.	99 %removal	OECD 301A - DOC
		Biodegradation		Organic	of DOC	Die Away Test
				Carbon Deplet		_

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Acetone	67-64-1	Experimental Bioconcentrati on		Log of Octanol/H2O part. coeff	-0.24	Non-standard method
Methyl Ethyl Ketone	78-93-3	Experimental Bioconcentrati on		Log of Octanol/H2O part. coeff	0.29	Non-standard method
Acrylonitrile- Butadiene Polymer	9003-18-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Ammonia, o- Cresol, Formaldehyde, Phenol Resin	55185-45-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
p-tert- Butylphenol- Formaldehyde Resin	25085-50-1	Estimated Bioconcentrati on		Bioaccumulatio n Factor	7.4	Non-standard method
Salicylic Acid	69-72-7	Experimental Bioconcentrati on		Log of Octanol/H2O part. coeff	2.26	Non-standard method
toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulatio n Factor	90	
toluene	108-88-3	Experimental Bioconcentrati on		Log of Octanol/H2O part. coeff	2.73	
Zinc Oxide	1314-13-2	Experimental BCF-Carp	56 days	Bioaccumulatio n Factor	≤217	OECD 305E-Bioaccum Fl-thru fis
Phenol	108-95-2	Experimental Bioconcentrati on		Log of Octanol/H2O part. coeff	1.47	Non-standard method
Benzenamine, N-Phenyl-, Reaction Products With 2,4,4- Trimethylpente ne	68411-46-1	Estimated BCF-Carp	42 days	Bioaccumulatio n Factor		Non-standard method
o-Cresol	95-48-7	Experimental BCF - Other		Bioaccumulatio n Factor	10.7	OECD 305E-Bioaccum Fl-thru fis
Formaldehyde	50-00-0	Experimental Bioconcentrati on		Log of Octanol/H2O part. coeff	0.35	Non-standard method

12.4. Mobility in soil Please contact manufacturer for more details

12.5 Other adverse effects

Material	CAS No.	Ozone Depletion Potential	Global Warming Potential
acetone	67-64-1	0	

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 Technical Name: None assigned. Hazard Class/Division: 3
Subsidiary Risk: None assigned.

Packing Group:II Limited Quantity:Yes Marine Pollutant: No

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Air Transport (IATA)

UN Number: UN1133

Proper Shipping Name: ADHESIVES Technical Name: None assigned. Hazard Class/Division: 3
Subsidiary Risk: None assigned.

Packing Group:II

Limited Quantity: None assigned.

Marine Pollutant: No

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 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 on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M Malaysia SDSs are available at www.3M.com.my