

Safety Data Sheet

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This Safety Data Sheet has been prepared in accordance with the GHS guidelines & India Hazardous substances (Classification, Labeling & Packaging) Draft Rules 2011.

SECTION 1: Identification

1.1. Product identifier

3M™ Scotch-Weld™ Neoprene High Performance Contact Adhesive EC-1357 Grey-Green

Product Identification Numbers

 62-1357-5540-3
 62-1357-6540-2
 87-2500-0403-0
 87-2500-0422-0
 87-3300-0146-9

 87-3300-0627-8
 87-3300-0628-6
 87-3300-0689-8
 87-3300-0690-6
 87-3300-0691-4

AS-0105-8800-7 UU-0015-1233-2

1.2. Recommended use and restrictions on use

Recommended use

Contact Adhesive

1.3. Supplier's details

Address: 3M India Limited, plot-48-51, Electronic city, Hosur road, Bangalore-560100

Telephone: 080-45543000, contact Product EHS team

E Mail: productehs.in@mmm.com
Website: http://solutions.3mindia.co.in

1.4. Emergency telephone number

080-45543000 (Contact hours: 8:00 AM to 5:00 PM)

SECTION 2: Hazard identification

Under MSIHC Rules, information is noted below on flammability, acute toxicity and explosivity relevant to this product. In line with international standards, information on other hazard classes and associated precautionary statements relevant to this product are included as well.

2.1. Classification of the substance or mixture

Flammable Liquid: Category 2.

Serious Eye Damage/Irritation: Category 2A Skin Corrosion/Irritation: Category 2.

Skin Sensitizer: Category 1.

Reproductive Toxicity: Category 1B.

Carcinogenicity: Category 2.

Specific Target Organ Toxicity (single exposure): Category 3.

3MTM Scotch-WeldTM Neoprene High Performance Contact Adhesive EC-1357 Grey-Green

Specific Target Organ Toxicity (repeated exposure): Category 1.

Acute Aquatic Toxicity: 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 vapour.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.
H360 May damage fertility or the unborn child.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure:

nervous system sensory organs

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P201 Obtain special instructions before use.

P210A Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280E Wear protective gloves.

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.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P308 + P313 If skin irritation or rash occurs: 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.

Disposal:

P501 Dispose of contents/container in accordance with applicable

local/regional/national/international regulations.

2.3. Other hazards

Aspiration classification does not apply due to the viscosity of the product.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
NAPHTHA(PETROLEUM), SOLVENT- REFINED LIGHT	64741-84-0	40 - 50
n-Hexane	110-54-3	10 - 25
Acetone	67-64-1	10 - 20
MAGNESIUM RESINATE	25085-50-1	7 - 13
Butanone	78-93-3	7 - 13
Methylcyclopentane	96-37-7	4 - 13
Polychloroprene	9010-98-4	7 - 13
Heptane	142-82-5	2 - 12
2-Methylpentane	107-83-5	5 - 10
3-Methylpentane	96-14-0	5 - 10
Toluene	108-88-3	3 - 7
Cyclohexane	110-82-7	<= 5
Magnesium oxide	1309-48-4	<= 5
Methyl Acetate	79-20-9	<= 1.5
Rosin	8050-09-7	< 1
Zinc oxide	1314-13-2	< 1
Ethylbenzene	100-41-4	< 0.5
Styrenated phenol	61788-44-1	< 0.5
Methanol	67-56-1	< 0.2
Benzene	71-43-2	< 0.1
Dichloromethane	75-09-2	< 0.01

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

Allergic skin reaction (redness, swelling, blistering, and itching). Central nervous system depression (headache, dizziness, drowsiness, incoordination, nausea, slurred speech, giddiness, and unconsciousness). Target organ effects 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	Condition
Aldehydes.	During combustion.
Hydrocarbons.	During combustion.
Formaldehyde	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Hydrogen Chloride	During combustion.
Ketones.	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 dykes 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 authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not 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/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the

workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators...) 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 acids. Store away from oxidising agents.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Ethylbenzene	100-41-4	ACGIH	TWA:20 ppm	A3: Confirmed animal
				carcin.
2-Methylpentane	107-83-5	ACGIH	TWA:500 ppm;STEL:1000	
			ppm	
Toluene	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human
				carcin, Ototoxicant
n-Hexane	110-54-3	ACGIH	TWA:50 ppm	Danger of cutaneous
				absorption
Cyclohexane	110-82-7	ACGIH	TWA:100 ppm	
Magnesium oxide	1309-48-4	ACGIH	TWA(inhalable fraction):10	A4: Not class. as human
			mg/m3	carcin
Zinc oxide	1314-13-2	ACGIH	TWA(respirable fraction):2	
			mg/m3;STEL(respirable	
			fraction):10 mg/m3	
Heptane	142-82-5	ACGIH	TWA:400 ppm;STEL:500 ppm	
Methanol	67-56-1	ACGIH	TWA:200 ppm;STEL:250 ppm	Danger of cutaneous
				absorption
Acetone	67-64-1	ACGIH	TWA:250 ppm;STEL:500 ppm	A4: Not class. as human
				carcin
Benzene	71-43-2	ACGIH	TWA:0.5 ppm;STEL:2.5 ppm	A1: Confirmed human
				carcin., SKIN
Dichloromethane	75-09-2	ACGIH	TWA:50 ppm	A3: Confirmed animal
				carcin.
Butanone	78-93-3	ACGIH	TWA:200 ppm;STEL:300 ppm	
Methyl Acetate	79-20-9	ACGIH	TWA:200 ppm;STEL:250 ppm	
Rosin	8050-09-7	ACGIH	TWA(as Resin, inhalable	Cntrl all exposr-low as
			fraction):0.001 mg/m3;Limit	possib,
			value not established:	Dermal/Respiratory
				Sensitizer
3-Methylpentane	96-14-0	ACGIH	TWA:500 ppm;STEL:1000	
			ppm	

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CMRG: Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment. 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:

Full face shield.

Indirect vented goggles.

Skin/hand protection

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

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

Half facepiece or full facepiece supplied-air respirator

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	Gray, Green
Odor	Strong Petroleum
Odour threshold	No data available.
pH	No data available.
Melting point/Freezing point: NA	No data available.
Boiling point/Initial boiling point/Boiling range	55.6 °C [Details: CONDITIONS: (acetone)]
Flash point	-25.6 °C [Test Method: Tagliabue closed cup]
Evaporation rate	>=2 [Ref Std:WATER=1]
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	1 % volume
Flammable Limits(UEL)	12.8 % volume
Vapour pressure	23,998 Pa [Details: CONDITIONS: @ 68F]

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Vapor Density and/or Relative Vapor Density	3 [Ref Std:AIR=1]
Density	0.84 g/ml
Relative density	0.84 [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
Volatile organic compounds (VOC)	668 g/l [Test Method:calculated SCAQMD rule 443.1]
Percent volatile	80 %
VOC less H2O & exempt solvents	813 g/l [Test Method:calculated SCAQMD rule 443.1]
Molecular weight	No data available.

Nanoparticles

This material does not contain nanoparticles.

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non reactive under normal use conditions

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Sparks and/or flames.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

Skin contact

Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching. May cause additional health effects (see below).

Eye contact

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

Ingestion

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

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. Peripheral neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy. Olfactory effects: Signs/symptoms may include decreased ability to detect odours and complete loss of smell. Neurological effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and changes in blood pressure and heart rate.

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

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-		No data available; calculated ATE >50 mg/l
	Vapor(4 hr)		
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT	Dermal	Rat	LD50 > 2,800 mg/kg
NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT	Inhalation-	Rat	LC50 > 25.2 mg/l
	Vapor (4		
	hours)		
NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT	Ingestion	Rat	LD50 > 5,840 mg/kg
n-Hexane	Dermal	Rabbit	LD50 > 2,000 mg/kg
n-Hexane	Inhalation-	Rat	LC50 170 mg/l
	Vapor (4		
	hours)		
n-Hexane	Ingestion	Rat	LD50 > 28,700 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
Heptane	Dermal	Rabbit	LD50 3,000 mg/kg
Heptane	Inhalation- Vapor (4 hours)	Rat	LC50 103 mg/l
Heptane	Ingestion	Rat	LD50 > 15,000 mg/kg
Methylcyclopentane	Dermal		LD50 estimated to be > 5,000 mg/kg
Methylcyclopentane	Ingestion	Rat	LD50 > 5,000 mg/kg
Butanone	Dermal	Rabbit	LD50 > 8,050 mg/kg
Butanone	Inhalation- Vapor (4 hours)	Rat	LC50 34.5 mg/l
Butanone	Ingestion	Rat	LD50 2,737 mg/kg
Polychloroprene	Dermal		LD50 estimated to be > 5,000 mg/kg
Polychloroprene	Ingestion	Rat	LD50 > 20,000 mg/kg
2-Methylpentane	Dermal		LD50 estimated to be > 5,000 mg/kg
2-Methylpentane	Inhalation- Vapor		LC50 estimated to be > 50 mg/l
2-Methylpentane	Ingestion		LD50 estimated to be > 5,000 mg/kg
3-Methylpentane	Dermal		LD50 estimated to be > 5,000 mg/kg
3-Methylpentane	Inhalation- Vapor		LC50 estimated to be > 50 mg/l
3-Methylpentane	Ingestion		LD50 estimated to be > 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
MAGNESIUM RESINATE	Dermal		LD50 estimated to be > 5,000 mg/kg
MAGNESIUM RESINATE	Ingestion	Rat	LD50 5,660 mg/kg
Magnesium oxide	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
Magnesium oxide	Ingestion	Rat	LD50 3,870 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
Methyl Acetate	Dermal	Rat	LD50 > 2,000 mg/kg
Methyl Acetate	Inhalation- Vapor (4 hours)	Rat	LC50 > 49 mg/l
Methyl Acetate	Ingestion	Rat	LD50 > 5,000 mg/kg
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
Rosin	Dermal	Rabbit	LD50 > 2,500 mg/kg
Rosin	Ingestion	Rat	LD50 7,600 mg/kg
Ethylbenzene	Dermal	Rabbit	LD50 15,433 mg/kg
Ethylbenzene	Inhalation- Vapor (4 hours)	Rat	LC50 17.4 mg/l
Ethylbenzene	Ingestion	Rat	LD50 4,769 mg/kg
Styrenated phenol	Dermal	Rat	LD50 > 2,000 mg/kg
Styrenated phenol	Ingestion	Rat	LD50 > 2,000 mg/kg
Methanol	Dermal	1	LD50 estimated to be 1,000 - 2,000 mg/kg
Methanol			LC50 estimated to be 10 - 20 mg/l

	Vapor		
Methanol	Ingestion		LD50 estimated to be 50 - 300 mg/kg
Dichloromethane	Dermal	Rat	LD50 > 2,000 mg/kg
Dichloromethane	Inhalation- Vapor (4 hours)	Rat	LC50 63.7 mg/l
Dichloromethane	Ingestion	Rat	LD50 1,410 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT	Rabbit	Irritant
n-Hexane	Human	Mild irritant
	and	
	animal	
Acetone	Mouse	Minimal irritation
Heptane	Human	Mild irritant
Methylcyclopentane	similar	Minimal irritation
	compoun	
	ds	
Butanone	Rabbit	Minimal irritation
Polychloroprene	Human	No significant irritation
2-Methylpentane	Professio	Mild irritant
	nal	
	judgemen	
	t	
3-Methylpentane	Professio	Mild irritant
	nal	
	judgemen	
	t	
Toluene	Rabbit	Irritant
Magnesium oxide	Professio	No significant irritation
	nal	
	judgemen	
	t	
Cyclohexane	Rabbit	Mild irritant
Methyl Acetate	Rabbit	No significant irritation
Zinc oxide	Human	No significant irritation
	and	
	animal	
Rosin	Rabbit	No significant irritation
Ethylbenzene	Rabbit	Mild irritant
Styrenated phenol	Rabbit	No significant irritation
Methanol	Rabbit	Mild irritant
Dichloromethane	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT	Rabbit	Mild irritant
n-Hexane	Rabbit	Mild irritant
Acetone	Rabbit	Severe irritant
Heptane	Professio	Moderate irritant
	nal	
	judgemen	
	t	
Methylcyclopentane	similar	Mild irritant
	compoun	
	ds	
Butanone	Rabbit	Severe irritant
Polychloroprene	Professio	No significant irritation
	nal	
	judgemen	
	t	

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2-Methylpentane	Professio nal judgemen	Moderate irritant
3-Methylpentane	Professio nal judgemen t	Moderate irritant
Toluene	Rabbit	Moderate irritant
Cyclohexane	Rabbit	Mild irritant
Methyl Acetate	Rabbit	Moderate irritant
Zinc oxide	Rabbit	Mild irritant
Rosin	Rabbit	Mild irritant
Ethylbenzene	Rabbit	Moderate irritant
Styrenated phenol	Rabbit	Mild irritant
Methanol	Rabbit	Moderate irritant
Dichloromethane	Rabbit	Severe irritant

Sensitization:

Skin Sensitisation

Name	Species	Value
NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT	Guinea	Not classified
n-Hexane	pig Human	Not classified
Toluene	Guinea	Not classified
MAGNESIUM RESINATE	pıg Human	Some positive data exist, but the data are not sufficient for classification
Methyl Acetate	Human	Not classified
Zinc oxide	Guinea	Not classified
Rosin	pıg Guinea pig	Sensitising
Ethylbenzene	Human	Not classified
Styrenated phenol	Mouse	Sensitising
Methanol	Guinea pig	Not classified

Respiratory Sensitisation

Name	Species	Value
Rosin	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
n-Hexane	In Vitro	Not mutagenic
n-Hexane	In vivo	Not mutagenic
Acetone	In vivo	Not mutagenic
Acetone	In Vitro	Some positive data exist, but the data are not sufficient for classification
Heptane	In Vitro	Not mutagenic
Butanone	In Vitro	Not mutagenic
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic
Magnesium oxide	In Vitro	Not mutagenic
Cyclohexane	In Vitro	Not mutagenic
Cyclohexane	In vivo	Some positive data exist, but the data are not sufficient for classification
Methyl Acetate	In Vitro	Not mutagenic
Methyl Acetate	In vivo	Not mutagenic
Zinc oxide	In Vitro	Some positive data exist, but the data are not

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		sufficient for classification
Zinc oxide	In vivo	Some positive data exist, but the data are not
		sufficient for classification
Ethylbenzene	In vivo	Not mutagenic
Ethylbenzene	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Methanol	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Methanol	In vivo	Some positive data exist, but the data are not
		sufficient for classification
Dichloromethane	In vivo	Not mutagenic
Dichloromethane	In Vitro	Some positive data exist, but the data are not
		sufficient for classification

Carcinogenicity

Name	Route	Species	Value
n-Hexane	Dermal	Mouse	Not carcinogenic
n-Hexane	Inhalation	Mouse	Some positive data exist, but the data are not
			sufficient for classification
Acetone	Not	Multiple	Not carcinogenic
	specified.	animal	
		species	
Butanone	Inhalation	Human	Not carcinogenic
Toluene	Dermal	Mouse	Some positive data exist, but the data are not
			sufficient for classification
Toluene	Ingestion	Rat	Some positive data exist, but the data are not
			sufficient for classification
Toluene	Inhalation	Mouse	Some positive data exist, but the data are not
			sufficient for classification
Magnesium oxide	Not	Human	Some positive data exist, but the data are not
	specified.	and	sufficient for classification
		animal	
Ethylbenzene	Inhalation	Multiple	Carcinogenic.
		animal	
		species	
Methanol	Inhalation	Multiple	Not carcinogenic
		animal	
		species	
Dichloromethane	Inhalation	Multiple	Carcinogenic.
		animal	
		species	

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
NAPHTHA(PETROLEUM), SOLVENT- REFINED LIGHT	Ingestion	Toxic to male reproduction	similar compoun ds	NOAEL not available	not available
NAPHTHA(PETROLEUM), SOLVENT- REFINED LIGHT	Inhalation	Toxic to male reproduction	similar compoun ds	NOAEL not available	not available
n-Hexane	Ingestion	Not classified for development	Mouse	NOAEL 2,200 mg/kg/day	during organogenesis
n-Hexane	Inhalation	Not classified for development	Rat	NOAEL 0.7 mg/l	during gestation
n-Hexane	Ingestion	Toxic to male reproduction	Rat	NOAEL 1,140 mg/kg/day	90 days
n-Hexane	Inhalation	Toxic to male reproduction	Rat	LOAEL 3.52 mg/l	28 days
Acetone	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,700 mg/kg/day	13 weeks

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Acetone	Inhalation	Not classified for development	Rat	NOAEL 5.2	during
		27		mg/l	organogenesis
Butanone	Inhalation	Not classified for development	Rat	LOAEL 8.8	during
			+	mg/l	gestation
Toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not	occupational
m.1	× 1 1 2	27 . 1 . 27 . 1		available	exposure
Toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520	during
		•		mg/kg/day	gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not	poisoning
		•		available	and/or abuse
Cyclohexane	Inhalation	Not classified for female reproduction	Rat	NOAEL 24	2 generation
		1		mg/l	
Cyclohexane	Inhalation	Not classified for male reproduction	Rat	NOAEL 24	2 generation
		1		mg/l	
Cyclohexane	Inhalation	Not classified for development	Rat	NOAEL 6.9	2 generation
		•		mg/l	
Zinc oxide	Ingestion	Not classified for reproduction and/or	Multiple	NOAEL 125	premating &
		development	animal	mg/kg/day	during
		1	species		gestation
Ethylbenzene	Inhalation	Not classified for development	Rat	NOAEL 4.3	premating &
		•		mg/l	during
					gestation
Methanol	Ingestion	Not classified for male reproduction	Rat	NOAEL	21 days
		•		1,600	
				mg/kg/day	
Methanol	Ingestion	Toxic to development	Mouse	LOAEL	during
		•		4,000	organogenesis
				mg/kg/day	
Methanol	Inhalation	Toxic to development	Mouse	NOAEL 1.3	during
		•		mg/l	organogenesis
Dichloromethane	Inhalation	Not classified for female reproduction	Rat	NOAEL 5.2	2 generation
		1		mg/l	
Dichloromethane	Inhalation	Not classified for male reproduction	Rat	NOAEL 5.2	2 generation
		r		mg/l	3
Dichloromethane	Inhalation	Not classified for development	Multiple	NOAEL 4.3	during
		F	animal	mg/l	gestation
			species	0 -	J

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT	Inhalation	central nervous system depression	May cause drowsiness or dizziness	similar compoun ds	NOAEL not available	not available
NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT	Ingestion	central nervous system depression	May cause drowsiness or dizziness	similar compoun ds	NOAEL not available	not available
n-Hexane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
n-Hexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rabbit	NOAEL Not available	8 hours
n-Hexane	Inhalation	respiratory system	Not classified	Rat	NOAEL 24.6 mg/l	8 hours
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	

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Acetone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
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 classification	Human	NOAEL Not available	
Heptane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Methylcyclopentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	similar compoun ds	NOAEL Not available	
Methylcyclopentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
Butanone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	official classifica tion	NOAEL Not available	
Butanone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Butanone	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
Butanone	Ingestion	liver	Not classified	Rat	NOAEL Not available	not applicable
Butanone	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 1,080 mg/kg	not applicable
2-Methylpentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
2-Methylpentane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
2-Methylpentane	Inhalation	cardiac sensitization	Not classified	Dog	NOAEL Not available	
2-Methylpentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
3-Methylpentane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
3-Methylpentane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
3-Methylpentane	Inhalation	cardiac sensitization	Not classified	Dog	NOAEL Not available	
3-Methylpentane	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL 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
Magnesium oxide	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	
Cyclohexane	Inhalation	central nervous	May cause drowsiness or	Human	NOAEL Not	

		system depression	dizziness	and animal	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	Professio nal judgeme nt	NOAEL Not available	
Methyl Acetate	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Methyl Acetate	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
Methyl Acetate	Inhalation	blindness	Not classified		NOAEL Not available	
Methyl Acetate	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL Not available	
Ethylbenzene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Ethylbenzene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Ethylbenzene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professio nal judgeme nt	NOAEL Not available	
Methanol	Inhalation	blindness	Causes damage to organs	Human	NOAEL Not available	occupational exposure
Methanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	not available
Methanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	6 hours
Methanol	Ingestion	blindness	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
Methanol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Dichloromethane	Dermal	blood	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	4 hours
Dichloromethane	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	occupational exposure
Dichloromethane	Inhalation	blood	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Dichloromethane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure
Name	Route	Target Organ(s)	value	Species	restresuit	Duration
NAPHTHA(PETROLEU M), SOLVENT-REFINED LIGHT	Inhalation	peripheral nervous system	May cause damage to organs though prolonged or repeated exposure	similar compoun ds	NOAEL not available	not available
n-Hexane	Inhalation	peripheral nervous system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
n-Hexane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Mouse	LOAEL 1.76 mg/l	13 weeks
n-Hexane	Inhalation	liver	Not classified	Rat	NOAEL Not available	6 months
n-Hexane	Inhalation	kidney and/or bladder	Not classified	Rat	LOAEL 1.76 mg/l	6 months
n-Hexane	Inhalation	hematopoietic	Not classified	Mouse	NOAEL 35.2	13 weeks

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		system			mg/l	
n-Hexane	Inhalation	auditory system immune system eyes	Not classified	Human	NOAEL Not available	occupational exposure
n-Hexane	Inhalation	heart skin endocrine system	Not classified	Rat	NOAEL 1.76 mg/l	6 months
n-Hexane	Ingestion	peripheral nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,140 mg/kg/day	90 days
n-Hexane	Ingestion	endocrine system hematopoietic system liver immune system kidney and/or bladder	Not classified	Rat	NOAEL Not available	13 weeks
Acetone	Dermal	eyes	Not classified	Guinea pig	NOAEL Not available	3 weeks
Acetone	Inhalation	hematopoietic system	Not classified	Human	NOAEL 3 mg/l	6 weeks
Acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 days
Acetone	Inhalation	kidney and/or bladder	Not classified	Guinea pig	NOAEL 119 mg/l	not available
Acetone	Inhalation	heart liver	Not classified	Rat	NOAEL 45 mg/l	8 weeks
Acetone	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 900 mg/kg/day	13 weeks
Acetone	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 200 mg/kg/day	13 weeks
Acetone	Ingestion	liver	Not classified	Mouse	NOAEL 3,896 mg/kg/day	14 days
Acetone	Ingestion	eyes	Not classified	Rat	NOAEL 3,400 mg/kg/day	13 weeks
Acetone	Ingestion	respiratory system	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	muscles	Not classified	Rat	NOAEL 2,500 mg/kg	13 weeks
Acetone	Ingestion	skin bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 11,298 mg/kg/day	13 weeks
Heptane	Inhalation	liver nervous system kidney and/or bladder	Not classified	Rat	NOAEL 12 mg/l	26 weeks
Butanone	Dermal	nervous system	Not classified	Guinea pig	NOAEL Not available	31 weeks
Butanone	Inhalation	liver kidney and/or bladder heart endocrine system gastrointestinal tract bone, teeth, nails, and/or hair hematopoietic system immune system muscles	Not classified	Rat	NOAEL 14.7 mg/l	90 days
Butanone	Ingestion	liver	Not classified	Rat	NOAEL Not available	7 days
Butanone	Ingestion	nervous system	Not classified	Rat	NOAEL 173 mg/kg/day	90 days
2-Methylpentane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 5.3 mg/l	14 weeks
2-Methylpentane	Ingestion	peripheral nervous system	Not classified	Rat	NOAEL Not available	8 weeks

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2-Methylpentane	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 2,000 mg/kg	28 days
3-Methylpentane	Inhalation	peripheral nervous system	Not classified	Rat	NOAEL 5.3 mg/l	14 weeks
3-Methylpentane	Ingestion	peripheral nervous system	Not classified	Rat	NOAEL Not available	8 weeks
3-Methylpentane	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 2,000 mg/kg	28 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 mg/kg/day	28 days
Toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks
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
Methyl Acetate	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	28 days
Methyl Acetate	Inhalation	endocrine system hematopoietic system liver immune system kidney and/or bladder	Not classified	Rat	NOAEL 6.1 mg/l	28 days
Zinc oxide	Ingestion	nervous system	Not classified	Rat	NOAEL 600 mg/kg/day	10 days
Zinc oxide	Ingestion	endocrine system	Not classified	Other	NOAEL 500	6 months

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		hematopoietic system kidney and/or bladder			mg/kg/day	
Ethylbenzene	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	2 years
Ethylbenzene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 1.1 mg/l	103 weeks
Ethylbenzene	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 3.4 mg/l	28 days
Ethylbenzene	Inhalation	auditory system	Not classified	Rat	NOAEL 2.4 mg/l	5 days
Ethylbenzene	Inhalation	endocrine system	Not classified	Mouse	NOAEL 3.3 mg/l	103 weeks
Ethylbenzene	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 3.3 mg/l	2 years
Ethylbenzene	Inhalation	bone, teeth, nails, and/or hair muscles	Not classified	Multiple animal species	NOAEL 4.2 mg/l	90 days
Ethylbenzene	Inhalation	heart immune system respiratory system	Not classified	Multiple animal species	NOAEL 3.3 mg/l	2 years
Ethylbenzene	Ingestion	liver kidney and/or bladder	Not classified	Rat	NOAEL 680 mg/kg/day	6 months
Methanol	Inhalation	liver	Not classified	Rat	NOAEL 6.55 mg/l	4 weeks
Methanol	Inhalation	respiratory system	Not classified	Rat	NOAEL 13.1 mg/l	6 weeks
Methanol	Ingestion	liver nervous system	Not classified	Rat	NOAEL 2,500 mg/kg/day	90 days
Dichloromethane	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 6.95 mg/l	2 years
Dichloromethane	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.17 mg/l	2 years
Dichloromethane	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	LOAEL 35 mg/l	8 weeks
Dichloromethane	Inhalation	heart	Not classified	Human	NOAEL Not available	
Dichloromethane	Inhalation	immune system	Not classified	Rat	NOAEL 18 mg/l	28 days
Dichloromethane	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 1,200 mg/kg/day	3 months
Dichloromethane	Ingestion	blood	Not classified	Rat	NOAEL 249 mg/kg/day	2 years
Dichloromethane	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,469 mg/kg/day	3 months
Dichloromethane	Ingestion	eyes	Not classified	Rat	NOAEL 249 mg/kg/day	104 weeks

Aspiration Hazard

Name	Value	
NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT	Aspiration hazard	
n-Hexane	Aspiration hazard	
Heptane	Aspiration hazard	
Methylcyclopentane	Aspiration hazard	
2-Methylpentane	Aspiration hazard	
3-Methylpentane	Aspiration hazard	
Toluene	Aspiration hazard	
Cyclohexane	Aspiration hazard	
Ethylbenzene	Aspiration hazard	

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

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:

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

No product test data available.

Material	CAS Nbr	Organism	Туре	Exposure	Test endpoint	Test result
NAPHTHA(PE TROLEUM), SOLVENT- REFINED LIGHT	64741-84-0	Green Algae	Estimated	72 hours	EC50	30 mg/l
NAPHTHA(PE TROLEUM), SOLVENT- REFINED LIGHT	64741-84-0	Rainbow trout	Estimated	96 hours	LL50	11.4 mg/l
NAPHTHA(PE TROLEUM), SOLVENT- REFINED LIGHT	64741-84-0	Water flea	Estimated	48 hours	EL50	3 mg/l
NAPHTHA(PE TROLEUM), SOLVENT- REFINED LIGHT	64741-84-0	Green Algae	Estimated	72 hours	NOEL	3 mg/l
NAPHTHA(PE TROLEUM), SOLVENT- REFINED LIGHT	64741-84-0	Water flea	Estimated	21 days	NOEL	1 mg/l
n-Hexane	110-54-3	Fathead minnow	Experimental	96 hours	LC50	2.5 mg/l
n-Hexane	110-54-3	Water flea	Experimental	48 hours	LC50	3.9 mg/l
Acetone	67-64-1	Algae other	Experimental	96 hours	EC50	11,493 mg/l
Acetone	67-64-1	Crustacea 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

Acetone	67-64-1	Bacteria	Experimental	16 hours	NOEC	1,700 mg/l
Acetone	67-64-1	Redworm	Experimental	48 hours	LC50	>100
	25085-50-1		Data not available or insufficient for classification			N/A
Butanone	78-93-3	Activated sludge	Experimental	12 hours	IC50	1,873 mg/l
Butanone	78-93-3	Bacteria	Experimental	16 hours	NOEC	1,150 mg/l
Butanone	78-93-3	Fathead minnow	Experimental	96 hours	LC50	2,993 mg/l
Butanone	78-93-3	Green algae	Experimental	96 hours	EC50	2,029 mg/l
Butanone	78-93-3	Water flea	Experimental	48 hours	EC50	308 mg/l
Butanone	78-93-3	Green Algae	Experimental	96 hours	EC10	1,289 mg/l
Butanone	78-93-3	Water flea	Experimental	21 days	NOEC	100 mg/l
Methylcyclope ntane	96-37-7		Data not available or insufficient for classification			N/A
Polychloropren e	9010-98-4		Data not available or insufficient for classification			N/A
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
2- Methylpentane	107-83-5		Data not available or insufficient for classification			N/A
3- Methylpentane	96-14-0		Data not available or insufficient for classification			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)
Cyclohexane	110-82-7	Bacteria	Experimental	24 hours	IC50	97 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

Magnesium	1309-48-4	<u> </u>	Data not		<u> </u>	N/A
oxide	1309-40-4		available or			
OAIde			insufficient for			
			classification			
Methyl Acetate	79-20-9	Bacteria	Experimental	16 hours	EC50	6,000 mg/l
Methyl Acetate		Green algae	Experimental	72 hours	EC50	>120 mg/l
Methyl Acetate	79-20-9	Water flea	Experimental	48 hours	EC50	1,026.7 mg/l
Methyl Acetate		Green algae	Experimental	72 hours	NOEC	120 mg/l
Rosin	8050-09-7	Bacteria	Experimental		EC50	76.1 mg/l
Rosin	8050-09-7	Green Algae	Experimental	72 hours	EL50	>100 mg/l
Rosin	8050-09-7	Water flea	Experimental	48 hours	EL50	911 mg/l
Rosin	8050-09-7	Zebra Fish	Experimental	96 hours	LL50	>1 mg/l
Rosin	8050-09-7	Green Algae	Experimental	72 hours	NOEL	100 mg/l
Zinc oxide	1314-13-2	Activated sludge	Estimated	3 hours	EC50	6.5 mg/l
Zinc oxide	1314-13-2	Green Algae	Estimated	72 hours	EC50	0.052 mg/l
Zinc oxide	1314-13-2	Rainbow trout	Estimated	96 hours	LC50	0.21 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
Ethylbenzene	100-41-4	Activated sludge	Experimental	49 hours	EC50	130 mg/l
Ethylbenzene	100-41-4	Atlantic Silverside	Experimental	96 hours	LC50	5.1 mg/l
Ethylbenzene	100-41-4	Green Algae	Experimental	96 hours	EC50	3.6 mg/l
Ethylbenzene	100-41-4	Mysid Shrimp	Experimental	96 hours	LC50	2.6 mg/l
Ethylbenzene	100-41-4	Rainbow trout	Experimental	96 hours	LC50	4.2 mg/l
Ethylbenzene	100-41-4	Water flea	Experimental	48 hours	EC50	1.8 mg/l
Ethylbenzene	100-41-4	Water flea	Experimental	7 days	NOEC	0.96 mg/l
Styrenated phenol	61788-44-1	Activated sludge	Experimental	3 hours	EC50	362 mg/l
Styrenated phenol	61788-44-1	Green algae	Experimental	72 hours	EC50	1.35 mg/l
Styrenated phenol	61788-44-1	Medaka	Experimental	96 hours	LC50	5.6 mg/l
Styrenated phenol	61788-44-1	Water flea	Experimental	48 hours	EC50	4.6 mg/l
Styrenated phenol	61788-44-1	Green Algae	Experimental	72 hours	NOEC	0.42 mg/l
Styrenated phenol	61788-44-1	Water flea	Experimental	21 days	NOEC	0.2 mg/l
Methanol	67-56-1	Activated sludge	Experimental	3 hours	IC50	>1,000 mg/l
Methanol	67-56-1	Algae or other aquatic plants	Experimental	96 hours	EC50	16.9 mg/l
Methanol	67-56-1	Bluegill	Experimental	96 hours	LC50	15,400 mg/l
Methanol	67-56-1	Green Algae	Experimental	96 hours	EC50	22,000 mg/l
Methanol	67-56-1	Water flea	Experimental	24 hours	EC50	20,803 mg/l
Methanol	67-56-1	Algae or other aquatic plants	Experimental	96 hours	NOEC	9.96 mg/l
Methanol	67-56-1	Water flea	Experimental	21 days	NOEC	122 mg/l
Benzene	71-43-2	Green Algae	Experimental	72 hours	EC50	29 mg/l
Benzene	71-43-2	Rainbow trout	Experimental	96 hours	LC50	5.3 mg/l

Benzene	71-43-2	Water flea	Experimental	48 hours	EC50	9.23 mg/l
Benzene	71-43-2	Fathead	Experimental	32 days	NOEC	0.8 mg/l
		minnow				
Benzene	71-43-2	Green algae	Experimental	72 hours	EC10	34 mg/l
Benzene	71-43-2	Water flea	Experimental	7 days	NOEC	3 mg/l
Dichlorometha	75-09-2	Fathead	Experimental	96 hours	LC50	193 mg/l
ne		minnow				
Dichlorometha	75-09-2	Green Algae	Experimental	72 hours	EC50	242 mg/l
ne						
Dichlorometha	75-09-2	Water flea	Experimental	48 hours	LC50	27 mg/l
ne						
Dichlorometha	75-09-2	Fathead	Experimental	28 days	NOEC	83 mg/l
ne		minnow				
Dichlorometha	75-09-2	Green Algae	Experimental	72 hours	EC10	115 mg/l
ne						
Dichlorometha	75-09-2	Activated	Experimental	40 minutes	EC50	2,590 mg/l
ne		sludge				

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
NAPHTHA(PE	64741-84-0	Estimated	28 days	BOD	98 %	OECD 301F -
TROLEUM),		Biodegradation			BOD/ThBOD	Manometric
SOLVENT-						respirometry
REFINED						
LIGHT						
n-Hexane	110-54-3	Experimental		Photolytic half-	5.4 days (t 1/2)	Non-standard method
		Photolysis		life (in air)		
n-Hexane	110-54-3	Experimental	28 days	BOD	100 % weight	OECD 301C - MITI
		Bioconcentrati				test (I)
		on				
Acetone	67-64-1	Experimental			147 days (t 1/2)	
		Photolysis		life (in air)		
Acetone	67-64-1	Experimental	28 days	BOD	78 %	OECD 301D - Closed
		Biodegradation			BOD/ThBOD	bottle test
MAGNESIUM	25085-50-1	Experimental	28 days	CO2 evolution	0 %CO2	
RESINATE		Biodegradation			evolution/THC	
					O2 evolution	
Butanone	78-93-3	Experimental	28 days	BOD	98 %	OECD 301D - Closed
		Biodegradation			BOD/ThBOD	bottle test
Methylcyclope	96-37-7	Estimated		Photolytic half-		Non-standard method
ntane		Photolysis		life (in air)	1/2)	
Methylcyclope	96-37-7	Experimental	28 days	BOD	2 %	OECD 301C - MITI
ntane		Biodegradation			BOD/ThBOD	test (I)
Polychloropren	9010-98-4	Data not			N/A	
e		available-				
		insufficient				
Heptane	142-82-5	Experimental		Photolytic half-		Non-standard method
		Photolysis		life (in air)	1/2)	
Heptane	142-82-5	Experimental	28 days	BOD	101 %	OECD 301C - MITI
		Biodegradation			BOD/ThBOD	test (I)
2-	107-83-5	Experimental		Photolytic half-	5.4 days (t 1/2)	Non-standard method
Methylpentane		Photolysis		life (in air)		
2-	107-83-5	Experimental	28 days	BOD	93 %	OECD 301C - MITI

Methylpentane		Biodegradation			BOD/ThBOD	test (I)
3-	96-14-0	Experimental		Photolytic half-	5.3 days (t 1/2)	Non-standard method
Methylpentane		Photolysis		life (in air)		
3-	96-14-0	Estimated	28 days	BOD	93 %	OECD 301C - MITI
Methylpentane		Biodegradation			BOD/ThBOD	test (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	BOD	80 % BOD/ThBOD	APHA Std Meth Water/Wastewater
Cyclohexane	110-82-7	Experimental Photolysis		Photolytic half- life (in air)	4.14 days (t 1/2)	Non-standard method
Cyclohexane	110-82-7	Experimental Biodegradation	28 days	BOD	77 % BOD/ThBOD	OECD 301F - Manometric respirometry
Magnesium oxide	1309-48-4	Data not available-insufficient			N/A	
Methyl Acetate		Experimental Biodegradation	28 days	BOD	70 % weight	OECD 301D - Closed bottle test
Rosin	8050-09-7	Experimental Biodegradation	28 days	CO2 evolution	64 % weight	OECD 301B - Modified sturm or CO2
Zinc oxide	1314-13-2	Data not available-insufficient			N/A	
Ethylbenzene	100-41-4	Experimental Photolysis		Photolytic half- life (in air)	4.26 days (t 1/2)	Non-standard method
Ethylbenzene	100-41-4	Experimental Biodegradation	28 days	CO2 evolution	70-80 %CO2 evolution/THC O2 evolution	ISO 14593 Inorg C Headspace
Styrenated phenol	61788-44-1	Experimental Biodegradation	28 days	BOD	7 % BOD/ThBOD	OECD 301F - Manometric respirometry
Methanol	67-56-1	Experimental Biodegradation	14 days	BOD	92 % BOD/ThBOD	OECD 301C - MITI test (I)
Benzene	71-43-2	Experimental Photolysis		Photolytic half- life (in air)	26 days (t 1/2)	Non-standard method
Benzene	71-43-2	Experimental Biodegradation	28 days	BOD	63 % weight	OECD 301F - Manometric respirometry
Dichlorometha ne	75-09-2	Experimental Photolysis		Photolytic half- life (in air)	226 days (t 1/2)	
Dichlorometha ne	75-09-2	Experimental Biodegradation	28 days	BOD	68 % BOD/ThBOD	OECD 301D - Closed bottle test

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
NAPHTHA(PE	64741-84-0	Data not	N/A	N/A	N/A	N/A
TROLEUM),		available or				
SOLVENT-		insufficient for				
REFINED		classification				
LIGHT						
n-Hexane	110-54-3	Estimated		Bioaccumulatio	50	Estimated:
		Bioconcentrati		n factor		Bioconcentration factor

		on				
Acetone	67-64-1	Experimental BCF - Other		Bioaccumulatio n factor	0.65	
Acetone	67-64-1	Experimental Bioconcentrati on		Log Kow	-0.24	
MAGNESIUM RESINATE	25085-50-1	Estimated Bioconcentrati on		Bioaccumulatio n factor	7.4	Non-standard method
Butanone	78-93-3	Experimental Bioconcentrati on		Log Kow	0.29	Non-standard method
Methylcyclope ntane	96-37-7	Experimental Bioconcentrati on		Log Kow	3.37	Non-standard method
Polychloropren e	9010-98-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Heptane	142-82-5	Estimated Bioconcentrati		Bioaccumulatio n factor	105	Estimated: Bioconcentration factor
2- Methylpentane	107-83-5	Estimated Bioconcentrati		Bioaccumulatio n factor	63	Non-standard method
3- Methylpentane	96-14-0	Estimated Bioconcentrati		Bioaccumulatio n factor	150	Estimated: Bioconcentration factor
Toluene	108-88-3	Experimental BCF - Other	72 hours	Bioaccumulatio n factor	90	
Toluene	108-88-3	Experimental Bioconcentrati on		Log Kow	2.73	
Cyclohexane	110-82-7	Experimental BCF-Carp	56 days	Bioaccumulatio n factor	129	OECD 305E - Bioaccumulation flow- through fish test
Magnesium oxide	1309-48-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Methyl Acetate	79-20-9	Experimental Bioconcentrati on		Log Kow	0.18	Non-standard method
Rosin	8050-09-7	Estimated BCF - Rainbow Trout	20 days	Bioaccumulatio n factor	129	Non-standard method
Zinc oxide	1314-13-2	Experimental BCF-Carp	56 days	Bioaccumulatio n factor		OECD 305E - Bioaccumulation flow- through fish test
Ethylbenzene	100-41-4	Experimental BCF - Salmon	42 days	Bioaccumulatio n factor		Non-standard method
Styrenated phenol	61788-44-1	Experimental BCF - Rainbow Trout	10 days	Bioaccumulatio n factor	10395	

Methanol	67-56-1	Experimental		Log Kow	-0.77	Non-standard method
		Bioconcentrati				
		on				
Benzene	71-43-2	Experimental		Log Kow	2.13	Non-standard method
		Bioconcentrati				
		on				
Dichlorometha	75-09-2	Experimental	42 days	Bioaccumulatio	≤40	OECD305-
ne		BCF-Carp		n factor		Bioconcentration
Dichlorometha	75-09-2	Experimental		Log Kow	1.25	
ne		Bioconcentrati				
		on				

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other Adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Incinerate in a permitted waste incineration facility. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

Air Transport (IATA)Regulations

UN No UN1133

Proper Shipping Name Adhesives

Hazard Classs/Division 3
Subsidiary Risk Not applicable

Packing Group: II

Marine Transport (IMDG)

UN No UN1133

Proper Shipping Name Adhesives

Hazard Classs/Division 3
Subsidiary Risk Not applicable

Packing Group: II

Environmental Hazards: Not applicable

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information. 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 product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Applicable Environmental, Health and Safety Regulations

The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 Hazardous Waste(Management, Handling & Transboundary) Rules, 2008 Hazardous Chemicals (Classification, Packaging and Labelling Draft Rules), 2011

The following ingredients are listed as hazardous on Part II of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules

2-Butanone

Acetone

Benzene

Cyclohexane

Ethylbenzene

n-Hexane

Hexane, all isomers

Methanol

Butanone

Dichloromethane

Toluene

The following ingredients are classified as hazardous based on the criteria listed under Part I of Schedule I of the India Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) rules:

The product is classified as Very Highly Flammable liquid as per MSIHC Rules, 1989.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 Flammability: 3 Instability: 0 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision information:

No revision 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 India SDSs are available at http://solutions.3mindia.co.in