

Safety Data Sheet

Copyright, 2021, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

Document Group: 10-5095-4 **Version Number:** 3.00

Issue Date: 13/07/2021 **Supercedes Date:** 09/10/2020

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™ 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 UU-0015-1233-2

1.2. Recommended use and restrictions on use

Recommended use

Contact Adhesive

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

E Mail: 3mmyehsr@mmm.com Website: www.3M.com.my

1.4. Emergency telephone number

+60 03-7884 2888

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Flammable Liquid: Category 2. Skin Corrosion/Irritation: Category 2. Serious Eye Damage/Irritation: Category 2. Reproductive Toxicity: Category 1B.

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

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.

H315 Causes skin irritation.
H319 Causes serious eve irritation.

H360 May damage fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure: nervous system.

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

Prevention:

P201 Obtain special instructions before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

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

P273 Avoid release to the environment.

P281 Use personal protective equipment as required.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P370 + P378 In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry

chemical or carbon dioxide to extinguish.

Disposal:

P501 Dispose of contents/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., May cause drowsiness or dizziness.

SECTION 3: Composition/information on ingredients

This material is a mixture.

| Ingredient | C.A.S. No. | % by Wt |
|------------------------------|------------|---------|
| NAPHTHA(PETROLEUM), SOLVENT- | 64741-84-0 | 40 - 50 |

| REFINED LIGHT | | |
|---------------------|------------|---------|
| HEXANE | 110-54-3 | 10 - 25 |
| ACETONE | 67-64-1 | 10 - 20 |
| MAGNESIUM RESINATE | 25085-50-1 | 7 - 13 |
| METHYL ETHYL KETONE | 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 |
| Xylene | 1330-20-7 | < 0.25 |
| METHYL ALCOHOL | 67-56-1 | < 0.2 |
| BENZENE | 71-43-2 | < 0.1 |

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

| <u>Substance</u> | <u>Condition</u> |
|-------------------|--------------------------|
| 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.

C -- 1'4' ---

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

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. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. 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 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.

| for the component. | | T | T | |
|--------------------------------------|------------|---------------|---|---|
| Ingredient | C.A.S. No. | Agency | Limit type | Additional Comments |
| ETHYLBENZENE | 100-41-4 | ACGIH | TWA:20 ppm | A3: Confirmed animal carcin. |
| ETHYLBENZENE | 100-41-4 | Malaysia OELs | TWA(8 hours):434 | |
| | | | mg/m3(100 ppm) | |
| 2-METHYLPENTANE | 107-83-5 | ACGIH | TWA:500 ppm;STEL:1000 | |
| | | | ppm | |
| HEXANE (ISOMERS OTHER | 107-83-5 | Malaysia OELs | TWA(8 hours):1760 | |
| THAN N-HEXANE) | | | mg/m3(500 ppm) | |
| TOLUENE | 108-88-3 | ACGIH | TWA:20 ppm | A4: Not class. as human carcin, Ototoxicant |
| TOLUENE | 108-88-3 | Malaysia OELs | TWA(8 hours):188 mg/m3(50 ppm) | SKIN |
| HEXANE | 110-54-3 | ACGIH | TWA:50 ppm | Danger of cutaneous absorption |
| HEXANE | 110-54-3 | Malaysia OELs | TWA(8 hours):176 mg/m3(50 ppm) | SKIN |
| HEXANE (ISOMERS OTHER THAN N-HEXANE) | 110-54-3 | ACGIH | TWA:500 ppm;STEL:1000 ppm | |
| CYCLOHEXANE | 110-82-7 | ACGIH | TWA:100 ppm | |
| CYCLOHEXANE | 110-82-7 | Malaysia OELs | TWA(8 hours):1030 mg/m3(300 ppm) | |
| DUST, INERT OR NUISANCE | 1309-48-4 | Malaysia OELs | TWA (proposed)(respirable particles)(8 hours):3 mg/m3;TWA (proposed)(Inhalable particulate)(8 hours):10 mg/m3 | |
| MAGNESIUM OXIDE | 1309-48-4 | ACGIH | TWA(inhalable fraction):10 mg/m3 | A4: Not class. as human carcin |
| MAGNESIUM OXIDE | 1309-48-4 | Malaysia OELs | TWA(as fume)(8 hours):10 mg/m3 | |
| DUST, INERT OR NUISANCE | 1314-13-2 | Malaysia OELs | TWA (proposed)(respirable particles)(8 hours):3 mg/m3;TWA (proposed)(Inhalable particulate)(8 hours):10 mg/m3 | |
| 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 | |
| Xylene | 1330-20-7 | ACGIH | TWA:100 ppm;STEL:150 ppm | A4: Not class. as human carcin |
| Xylene | 1330-20-7 | Malaysia OELs | TWA(8 hours):434 mg/m3(100 ppm) | |

| HEPTANE | 142-82-5 | ACGIH | TWA:400 ppm;STEL:500 ppm | |
|-----------------------|------------|---------------|------------------------------|--------------------------------|
| HEPTANE | 142-82-5 | Malaysia OELs | TWA(8 hours):1640 | |
| | | | mg/m3(400 ppm) | |
| METHYL ALCOHOL | 67-56-1 | ACGIH | TWA:200 ppm;STEL:250 ppm | |
| | | | | absorption |
| METHYL ALCOHOL | 67-56-1 | Malaysia OELs | TWA(8 hours):262 | SKIN |
| | | | mg/m3(200 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) | |
| BENZENE | 71-43-2 | ACGIH | TWA:0.5 ppm;STEL:2.5 ppm | A1: Confirmed human |
| | | | | carcin., SKIN |
| BENZENE | 71-43-2 | Malaysia OELs | TWA(8 hours):1.6 mg/m3(0.5 | |
| | | | 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) | |
| Methyl Acetate | 79-20-9 | ACGIH | TWA:200 ppm;STEL:250 ppm | |
| Methyl Acetate | 79-20-9 | Malaysia OELs | TWA(8 hours):606 | |
| | | | mg/m3(200 ppm) | |
| ROSIN | 8050-09-7 | ACGIH | TWA(as Resin, inhalable | Dermal/Respiratory |
| | | | fraction):0.001 mg/m3 | Sensitizer |
| ROSIN | 8050-09-7 | Malaysia OELs | Limit value not established: | |
| 3-METHYLPENTANE | 96-14-0 | ACGIH | TWA:500 ppm;STEL:1000 | |
| | | | ppm | |
| HEXANE (ISOMERS OTHER | 96-14-0 | Malaysia OELs | TWA(8 hours):1760 | |
| THAN N-HEXANE) | 417.1.4:11 | | mg/m3(500 ppm) | |

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer's Recommended Guidelines

Malaysia OELs: Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations

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

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

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 vapors 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 | |
| Odor threshold | No Data Available | |
| pH | No Data Available | |
| Melting point/Freezing point | 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 | |
| Vapor Pressure | 23,998 Pa [Details: CONDITIONS: @ 68F] | |
| Vapor Density and/or Relative Vapor Density | 3 [<i>Ref Std</i> :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 | 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

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

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 polymerization will not occur.

10.4. Conditions to avoid

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:

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 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.

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 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.

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- Vapor(4 hr) | | No data available; calculated ATE >50 mg/l |
| 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- Vapor (4 hours) | Rat | LC50 > 25.2 mg/l |
| NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT | Ingestion | Rat | LD50 > 5,840 mg/kg |
| HEXANE | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| HEXANE | Inhalation- Vapor (4 hours) | Rat | LC50 170 mg/l |
| 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 |
| METHYL ETHYL KETONE | Dermal | Rabbit | LD50 > 8,050 mg/kg |
| METHYL ETHYL KETONE | Inhalation- | Rat | LC50 34.5 mg/l |

| | Vapor (4 | | |
|---------------------|-------------------------|----------------|--|
| | hours) | | |
| METHYL ETHYL KETONE | 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- | | LC50 estimated to be > 50 mg/l |
| 2 MBTITES BIGTING | Vapor | | Description of the state of the |
| 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- | | LC50 estimated to be > 50 mg/l |
| | Vapor | | Description to the property of |
| 3-METHYLPENTANE | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| TOLUENE | Dermal | Rat | LD50 12,000 mg/kg |
| TOLUENE | Inhalation- | Rat | LC50 30 mg/l |
| | Vapor (4 | | - |
| | hours) | | |
| 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 | LD50 estimated to be 2,000 - 5,000 mg/kg |
| | | nal judgeme | |
| | | nt | |
| MAGNESIUM OXIDE | Ingestion | Rat | LD50 3,870 mg/kg |
| CYCLOHEXANE | Dermal | Rat | LD50 > 2,000 mg/kg |
| CYCLOHEXANE | Inhalation- | Rat | LC50 > 32.9 mg/l |
| | Vapor (4 | | č |
| | hours) | | |
| CYCLOHEXANE | Ingestion | Rat | LD50 6,200 mg/kg |
| Methyl Acetate | Dermal | Rat | LD50 > 2,000 mg/kg |
| Methyl Acetate | Inhalation- | Rat | LC50 > 49 mg/l |
| | Vapor (4 hours) | | |
| Methyl Acetate | Ingestion | Rat | LD50 > 5,000 mg/kg |
| ZINC OXIDE | Dermal | Tut | LD50 estimated to be > 5,000 mg/kg |
| ZINC OXIDE | Inhalation- | Rat | LC50 > 5.7 mg/l |
| Ente OABE | Dust/Mist | Rat | EC30 > 3.7 mg/1 |
| | (4 hours) | | |
| 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 | Rat | LC50 17.4 mg/l |
| | vapor (4 hours) | | |
| 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 LD50 > 2,000 mg/kg |
| Xylene | Dermal | Rabbit | LD50 > 4,200 mg/kg |
| Xylene | Inhalation- | Rat | LC50 29 mg/l |
| | Vapor (4 | | |
| | hours) | D . | Y D 50 0 500 // |
| Xylene Xylene | Ingestion | Rat | LD50 3,523 mg/kg |
| METHYL ALCOHOL | Dermal | | LD50 estimated to be 1,000 - 2,000 mg/kg |
| METHYL ALCOHOL | Inhalation- | | LC50 estimated to be 10 - 20 mg/l |
| METHYL ALCOHOL | Vapor | | LD50 action at the basic 200 // |
| METHYL ALCOHOL | Ingestion | | LD50 estimated to be 50 - 300 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|------|---------|-------|
| | | |

Page: 10 of 28

| HEXANE ACETONE ACETONE Mouse Minimal irritation Mild irritant Minimal irritation Professio nal judgemen t t 3-METHYL ETHYL KETONE Professio nal judgemen t t TOLUENE ARabbit Mild irritant Mild irritant Mild irritant No significant irritation Mild irritant Mo significant irritation Mild irritant Mild irritant No significant irritation Mild irritant No significant irritation And animal ROSIN Rabbit No significant irritation Mild irritant No significant irritation Mild irritant No significant irritation Mild irritant No significant irritation And And And And And And And A | NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT | Rabbit | Irritant |
|--|---|---------------|----------------------------|
| ACETONE Mouse Minimal irritation HEPTANE Human Mild irritant METHYLCYCLOPENTANE Similar compound ds METHYL ETHYL KETONE Rabbit Minimal irritation METHYL ETHYL KETONE Rabbit Minimal irritation METHYL ETHYL KETONE Rabbit Minimal irritation POLYCHLOROPRENE Human No significant irritation 2-METHYLPENTANE Professio nal judgemen t | HEXANE | Human | Mild irritant |
| ACETONE HEPTANE HEPTANE HEMANE METHYLCYCLOPENTANE METHYL ETHYL KETONE POLYCHLOROPRENE Human No significant irritation METHYLPENTANE POLYCHOROPRENE Human No significant irritation Mild irritant Minimal irritation Minimal irritation Minimal irritation No significant irritation Mild irritant Magnesium oxide Toluene Agabeti Mild irritant Magnesium oxide CYCLOHEXANE Agabeti Mild irritant No significant irritation Mild irritant Mild irritant No significant irritation Mild irritant Mild irritant No significant irritation Mild irritant No significant irritation No significant irritation No significant irritation Mild irritant No significant irritation No significant irritation No significant irritation Mild irritant No significant irritation Mild irritant No significant irritation Mild irritant No significant irritation No significant irritation Mild irritant No significant irritation No significant irritation Mild irritant No significant irritation | | ****** | |
| HEPTANE METHYLCYCLOPENTANE Similar compoun ds METHYL ETHYL KETONE RETHYL ETHYL KETONE POLYCHLOROPRENE Human No significant irritation Mild irritant Minimal irritation No significant irritation Mild irritant Mild irritant No significant irritation Mild irritant No significant irritation Mild irritant No significant irritation Mild irritant Methyl Acetate Rabbit No significant irritation No significant irritation Mild irritant No significant irritation No significant irritation No significant irritation No significant irritation Mild irritant No significant irritation No significant irritation No significant irritation No significant irritation Mild irritant No significant irritation No significant irritation No significant irritation No significant irritation Mild irritant No significant irritation | | animal | |
| METHYLCYCLOPENTANE METHYL ETHYL KETONE POLYCHLOROPRENE 2-METHYLPENTANE 3-METHYLPENTANE 3-METHYLPENTANE Professio nal judgemen t TOLUENE MAGNESIUM OXIDE CYCLOHEXANE Methyl Acetate Rabbit Mild irritant No significant irritation Mild irritant Mild irritant Mild irritant No significant irritation Mild irritant Mild irritant No significant irritation No significant irritation No significant irritation No significant irritation Mild irritant No significant irritation Mild irritant No significant irritation Rabbit Mild irritant No significant irritation Mild irritant No significant irritation No significant irritation No significant irritation Mild irritant No significant irritation Mild irritant No significant irritation No significant irritation Mild irritant No significant irritation Mild irritant No significant irritation Mild irritant No significant irritation | ACETONE | Mouse | Minimal irritation |
| Compounds Compounds | | Human | |
| METHYL ETHYL KETONE METHYL ETHYL KETONE POLYCHLOROPRENE PUman Professio nal judgemen t TOLUENE Rabbit Mild irritant MAGNESIUM OXIDE CYCLOHEXANE Rethyl Acetate Rabbit Methyl Acetate Rosin Rosin Rosin Rosin Rabbit Rosin R | METHYLCYCLOPENTANE | similar | Minimal irritation |
| METHYL ETHYL KETONE POLYCHLOROPRENE Human POLYCHLOROPRENE POLYCHLOROPRENE Human POSignificant irritation No significant irritation Mild irritant Mild irritant Professio nal judgemen t TOLUENE Rabbit MAGNESIUM OXIDE Professio nal judgemen t Rabbit Mo significant irritation No significant irritation No significant irritation Rabbit No significant irritation Rosin Rabbit No significant irritation Rosin Rabbit No significant irritation Rosin Rosin Rabbit No significant irritation Rosin Rabbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation | | | |
| POLYCHLOROPRENE 2-METHYLPENTANE 3-METHYLPENTANE 3-METHYLPENTANE 3-METHYLPENTANE 4-Professio nal judgemen t t TOLUENE Rabbit MAGNESIUM OXIDE 7-Professio nal judgemen t t TOLUENE Rabbit MAGNESIUM OXIDE Professio nal judgemen t t TOLUENE Rabbit MAGNESIUM OXIDE Professio nal judgemen t t Magnesium oxide in tritation No significant irritation Mild irritant No significant irritation No significant irritation Mosignificant irritation No significant irritation Rabbit No significant irritation No significant irritation Rabbit No significant irritation No significant irritation Rabbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation No significant irritation Rabbit No significant irritation No significant irritation | | | |
| 2-METHYLPENTANE Professio nal judgemen t 3-METHYLPENTANE Professio nal judgemen t TOLUENE Rabbit Irritant MAGNESIUM OXIDE Professio nal judgemen t CYCLOHEXANE Rabbit Mild irritant Methyl Acetate Rabbit No significant irritation ZINC OXIDE Human and animal ROSIN Rabbit No significant irritation ROSIN Rabbit No significant irritation TOLUENE Rabbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation Xylene Rabbit Mild irritant | | | |
| anal judgemen t 3-METHYLPENTANE Professio nal judgemen t TOLUENE Rabbit Irritant MAGNESIUM OXIDE Professio nal judgemen t No significant irritation Mild irritant No significant irritation Rabbit No significant irritation Methyl Acetate Rabbit No significant irritation Ilman No significant irritation ROSIN RABBIT No significant irritation ROSIN RABBIT No significant irritation ROSIN RABBIT No significant irritation RABBIT No significant irritation ROSIN RABBIT No significant irritation | | | C |
| 3-METHYLPENTANE Professio nal judgemen t TOLUENE Rabbit Irritant MAGNESIUM OXIDE Professio nal judgemen t CYCLOHEXANE Rabbit Mild irritant Methyl Acetate Rabbit No significant irritation ZINC OXIDE Human and animal ROSIN ROSIN ROSIN ROSIN ROSIN ROSIN ROSIN RABBIT No significant irritation ROSIN RABBIT No significant irritation ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Mild irritant No significant irritation | 2-METHYLPENTANE | | Mild irritant |
| 3-METHYLPENTANE Professio nal judgemen t TOLUENE Rabbit Irritant MAGNESIUM OXIDE Professio nal judgemen t CYCLOHEXANE Rabbit Mild irritant Methyl Acetate Rabbit No significant irritation ZINC OXIDE Human and animal ROSIN ROSIN Rabbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Mild irritant No significant irritation | | | |
| TOLUENE Rabbit Irritant MAGNESIUM OXIDE Professio nal judgemen t CYCLOHEXANE Rabbit Mild irritant Methyl Acetate Rabbit No significant irritation ZINC OXIDE Human and animal ROSIN ROSIN ROSIN ROSIN RABBIT No significant irritation Rabbit Mild irritant Rabbit No significant irritation Rabbit Mild irritant Rabbit No significant irritation Rabbit No significant irritation | | judgemen | |
| TOLUENE Rabbit Irritant MAGNESIUM OXIDE Professio nal judgemen t CYCLOHEXANE Rabbit Mild irritant Methyl Acetate Rabbit No significant irritation ZINC OXIDE Human and animal ROSIN ROSIN ROSIN ROSIN RABBIT No significant irritation Rabbit Mild irritant Rabbit No significant irritation Rabbit Mild irritant Rabbit No significant irritation Rabbit No significant irritation | | t | |
| TOLUENE Rabbit Irritant MAGNESIUM OXIDE Professio nal judgemen t CYCLOHEXANE Rabbit Mild irritant Methyl Acetate Rabbit No significant irritation ZINC OXIDE Human and animal ROSIN Rabbit No significant irritation ETHYLBENZENE Rabbit No significant irritation ETHYLBENZENE Rabbit No significant irritation ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Rabbit No significant irritation | 3-METHYLPENTANE | | Mild irritant |
| TOLUENE Rabbit Irritant MAGNESIUM OXIDE Professio nal judgemen t CYCLOHEXANE Rabbit Mild irritant Methyl Acetate Rabbit No significant irritation ZINC OXIDE Human and animal ROSIN Rabbit No significant irritation Mild irritant STYRENATED PHENOL Rabbit No significant irritation Mild irritant Mild irritant Mild irritant | | | |
| MAGNESIUM OXIDE Professio nal judgemen t CYCLOHEXANE Rabbit Mild irritant Methyl Acetate ZINC OXIDE Human and animal ROSIN ROSIN Rabbit No significant irritation ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Mild irritant | | judgemen | |
| MAGNESIUM OXIDE Professio nal judgemen t CYCLOHEXANE Rabbit Mild irritant Methyl Acetate ZINC OXIDE Human and animal ROSIN ROSIN Rabbit No significant irritation ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Mild irritant | TOLLIENE | D-bbis | Yi. |
| nal judgemen t CYCLOHEXANE Rabbit Mild irritant Methyl Acetate Rabbit No significant irritation ZINC OXIDE Human and animal ROSIN RABbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Rabbit Mild irritant Mild irritant Mild irritant Mild irritant Mild irritant Mild irritant | | | *** * |
| judgemen t CYCLOHEXANE Rabbit Mild irritant | MAGNESIUM OXIDE | | No significant irritation |
| CYCLOHEXANE Rabbit Mild irritant Methyl Acetate Rabbit No significant irritation ZINC OXIDE Human and animal ROSIN Rabbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation Rabbit No significant irritation ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Rabbit Mild irritant Mild irritant Mild irritant Mild irritant Mild irritant Mild irritant | | | |
| Methyl Acetate Rabbit No significant irritation ZINC OXIDE Human and animal No significant irritation ROSIN Rabbit No significant irritation ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Xylene Rabbit Mild irritant | | juagemen + | |
| Methyl Acetate Rabbit No significant irritation ZINC OXIDE Human and animal No significant irritation ROSIN Rabbit No significant irritation ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Xylene Rabbit Mild irritant | CVCLOHEYANE | Rabbit | Mild irritant |
| ZINC OXIDE Human and animal ROSIN RABbit No significant irritation ETHYLBENZENE RABbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Rabbit Mild irritant Mild irritant Mild irritant Xylene Rabbit Mild irritant | | | |
| and animal ROSIN Rabbit No significant irritation ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Xylene Rabbit Mild irritant Mild irritant Mild irritant | | | <u> </u> |
| ROSIN Rabbit No significant irritation ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Xylene Rabbit Mild irritant | Ente OMBE | | 140 Significant irritation |
| ROSINRabbitNo significant irritationETHYLBENZENERabbitMild irritantSTYRENATED PHENOLRabbitNo significant irritationXyleneRabbitMild irritant | | | |
| ETHYLBENZENE Rabbit Mild irritant STYRENATED PHENOL Rabbit No significant irritation Xylene Rabbit Mild irritant | ROSIN | | No significant irritation |
| STYRENATED PHENOL Rabbit No significant irritation Xylene Rabbit Mild irritant | | | ŭ |
| Xylene Rabbit Mild irritant | | | |
| | | | |
| | METHYL ALCOHOL | Rabbit | Mild irritant |

Serious Eye Damage/Irritation

| Name | Species | Value |
|--|-----------|---------------------------|
| NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT | Rabbit | Mild irritant |
| HEXANE | Rabbit | Mild irritant |
| | | |
| ACETONE | Rabbit | Severe irritant |
| HEPTANE | Professio | Moderate irritant |
| | nal | |
| | judgemen | |
| A COMPANY OF A COM | t | 2011 |
| METHYLCYCLOPENTANE | similar | Mild irritant |
| | compoun | |
| | ds | |
| METHYL ETHYL KETONE | Rabbit | Severe irritant |
| POLYCHLOROPRENE | Professio | No significant irritation |
| | nal | |
| | judgemen | |
| | t | |
| 2-METHYLPENTANE | Professio | Moderate irritant |
| | nal | |
| | judgemen | |
| | t | |
| 3-METHYLPENTANE | Professio | Moderate irritant |
| | nal | |
| | judgemen | |
| | t | |
| 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 |
| Xylene | Rabbit | Mild irritant |
| METHYL ALCOHOL | Rabbit | Moderate irritant |

Sensitization:

Skin Sensitization

| Name | Species | Value |
|---|---------|--|
| NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT | Guinea | Not classified |
| | pig | |
| HEXANE | Human | Not classified |
| TOLUENE | Guinea | Not classified |
| | pig | |
| MAGNESIUM RESINATE | Human | Some positive data exist, but the data are not |
| | | sufficient for classification |
| Methyl Acetate | Human | Not classified |
| ZINC OXIDE | Guinea | Not classified |
| | pig | |
| ROSIN | Guinea | Sensitizing |
| | pig | |
| ETHYLBENZENE | Human | Not classified |
| STYRENATED PHENOL | Mouse | Sensitizing |
| METHYL ALCOHOL | Guinea | Not classified |
| | pig | |

Respiratory Sensitization

| Name | Species | Value |
|-------|---------|----------------|
| ROSIN | Human | Not classified |

Germ Cell Mutagenicity

| Name | Route | Value |
|---------------------|----------|--|
| HEXANE | In Vitro | Not mutagenic |
| 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 |
| METHYL ETHYL KETONE | 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 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 |
| Xylene | In Vitro | Not mutagenic |
| Xylene | In vivo | Not mutagenic |
| METHYL ALCOHOL | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| METHYL ALCOHOL | In vivo | Some positive data exist, but the data are not sufficient for classification |

Carcinogenicity

| Name | Route | Species | Value |
|---------------------|------------------|-------------------------------|--|
| HEXANE | Dermal | Mouse | Not carcinogenic |
| HEXANE | Inhalation | Mouse | Some positive data exist, but the data are not sufficient for classification |
| 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 |
| MAGNESIUM OXIDE | Not Specified | Human and animal | Some positive data exist, but the data are not sufficient for classification |
| ETHYLBENZENE | Inhalation | Multiple animal species | Carcinogenic |
| Xylene | Dermal | Rat | Not carcinogenic |
| Xylene | Ingestion | Multiple animal species | Not carcinogenic |
| Xylene | Inhalation | Human | Some positive data exist, but the data are not sufficient for classification |
| METHYL ALCOHOL | Inhalation | Multiple animal species | Not carcinogenic |

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 |
| HEXANE | Ingestion | Not classified for development | Mouse | NOAEL 2,200 mg/kg/day | during organogenesis |
| HEXANE | Inhalation | Not classified for development | Rat | NOAEL 0.7 mg/l | during gestation |
| HEXANE | Ingestion | Toxic to male reproduction | Rat | NOAEL 1,140 mg/kg/day | 90 days |
| 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 |
| 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 |

D 10.0.0

| TOLUENE | Inhalation | Toxic to development | Human | NOAEL Not available | poisoning and/or abuse |
|----------------|------------|--|-------------------------------|-----------------------------|------------------------------|
| CYCLOHEXANE | Inhalation | Not classified for female reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| CYCLOHEXANE | Inhalation | Not classified for male reproduction | Rat | NOAEL 24 mg/l | 2 generation |
| CYCLOHEXANE | Inhalation | Not classified for development | Rat | NOAEL 6.9 mg/l | 2 generation |
| ZINC OXIDE | Ingestion | Not classified for reproduction and/or development | Multiple animal species | NOAEL 125 mg/kg/day | premating & during gestation |
| ETHYLBENZENE | Inhalation | Not classified for development | Rat | NOAEL 4.3 mg/l | premating & during gestation |
| Xylene | Inhalation | Not classified for female reproduction | Human | NOAEL Not available | occupational exposure |
| Xylene | Ingestion | Not classified for development | Mouse | NOAEL Not available | during organogenesis |
| Xylene | Inhalation | Not classified for development | Multiple animal species | NOAEL Not available | during gestation |
| METHYL ALCOHOL | Ingestion | Not classified for male reproduction | Rat | NOAEL 1,600 mg/kg/day | 21 days |
| METHYL ALCOHOL | Ingestion | Toxic to development | Mouse | LOAEL 4,000 mg/kg/day | during organogenesis |
| METHYL ALCOHOL | Inhalation | Toxic to development | Mouse | NOAEL 1.3 mg/l | during organogenesis |

Lactation

| Name | Route | Species | Value |
|--------|-----------|---------|--|
| Xylene | Ingestion | Mouse | Not classified for effects on or via lactation |

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 availavle | not available |
| HEXANE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | not available |
| HEXANE | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Rabbit | NOAEL Not available | 8 hours |
| 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 | |
| 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 | |

Dogg. 14 of

| 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 | |
| METHYLCYCLOPENTA NE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | similar compoun ds | NOAEL Not available | |
| METHYLCYCLOPENTA NE | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Professio nal judgeme nt | NOAEL Not available | |
| METHYL ETHYL KETONE | Inhalation | central nervous system depression | May cause drowsiness or dizziness | official classifica tion | NOAEL Not 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 |
| 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 system depression | May cause drowsiness or dizziness | Human and animal | NOAEL Not available | |
| CYCLOHEXANE | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for | Human and | NOAEL Not available | |

Page: 15 of 28

| | | | classification | animal | | |
|----------------|------------|--------------------------------------|--|-----------------------------------|------------------------|---------------------------|
| 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 | |
| Xylene | Inhalation | auditory system | Causes damage to organs | Rat | LOAEL 6.3 mg/l | 8 hours |
| Xylene | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | |
| Xylene | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL Not available | |
| Xylene | Inhalation | eyes | Not classified | Rat | NOAEL 3.5 mg/l | not available |
| Xylene | Inhalation | liver | Not classified | Multiple animal species | NOAEL Not available | |
| Xylene | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Multiple animal species | NOAEL Not available | |
| Xylene | Ingestion | eyes | Not classified | Rat | NOAEL 250 mg/kg | not applicable |
| METHYL ALCOHOL | Inhalation | blindness | Causes damage to organs | Human | NOAEL Not available | occupational exposure |
| METHYL ALCOHOL | Inhalation | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | not available |
| METHYL ALCOHOL | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL Not available | 6 hours |
| METHYL ALCOHOL | Ingestion | blindness | Causes damage to organs | Human | NOAEL Not available | poisoning and/or abuse |
| METHYL ALCOHOL | Ingestion | central nervous system depression | May cause drowsiness or dizziness | Human | NOAEL Not available | poisoning and/or abuse |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|--|------------|------------------------------|--|--------------------------|---------------------|-----------------------|
| 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 |
| HEXANE | Inhalation | peripheral nervous system | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |
| HEXANE | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Mouse | LOAEL 1.76 mg/l | 13 weeks |
| HEXANE | Inhalation | liver | Not classified | Rat | NOAEL Not available | 6 months |
| HEXANE | Inhalation | kidney and/or | Not classified | Rat | LOAEL 1.76 | 6 months |

D 16 C 2

| HEXANE | Inhalation | bladder | Not classified | Mauga | mg/l NOAEL 35.2 | 13 weeks |
|------------------------|------------|--|--|---------------|------------------------------|-----------------------|
| HEXANE | Inhalation | hematopoietic system | Not classified | Mouse | mg/l | |
| HEXANE | Inhalation | auditory system immune system eyes | Not classified | Human | NOAEL Not available | occupational exposure |
| HEXANE | Inhalation | heart skin endocrine system | Not classified | Rat | NOAEL 1.76 mg/l | 6 months |
| 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 |
| 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 |
| 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 |
| 2-METHYLPENTANE | Inhalation | peripheral nervous system | Not classified | Rat | NOAEL 5.3 mg/l | 14 weeks |

| Ingestion | peripheral nervous | | | | 8 weeks |
|------------|--|--|--|--|--|
| | system | Not classified | Rat | NOAEL Not available | |
| Ingestion | kidney and/or bladder | Not classified | Rat | LOAEL 2,000 mg/kg | 28 days |
| Inhalation | system | Not classified | Rat | mg/l | 14 weeks |
| Ingestion | peripheral nervous system | Not classified | Rat | NOAEL Not available | 8 weeks |
| Ingestion | kidney and/or bladder | Not classified | Rat | LOAEL 2,000 mg/kg | 28 days |
| Inhalation | auditory system eyes olfactory | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | poisoning and/or abuse |
| Inhalation | nervous system | May cause damage to organs though prolonged or repeated exposure | Human | NOAEL Not available | poisoning and/or abuse |
| Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 2.3 mg/l | 15 months |
| Inhalation | heart liver kidney and/or bladder | Not classified | Rat | NOAEL 11.3 mg/l | 15 weeks |
| Inhalation | endocrine system | Not classified | Rat | NOAEL 1.1 | 4 weeks |
| Inhalation | immune system | Not classified | Mouse | NOAEL Not | 20 days |
| Inhalation | bone, teeth, nails, | Not classified | Mouse | NOAEL 1.1 | 8 weeks |
| Inhalation | hematopoietic system vascular | Not classified | Human | NOAEL Not available | occupational exposure |
| Inhalation | gastrointestinal tract | Not classified | Multiple animal species | NOAEL 11.3 mg/l | 15 weeks |
| Ingestion | nervous system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 625 mg/kg/day | 13 weeks |
| Ingestion | heart | Not classified | Rat | NOAEL 2,500 mg/kg/day | 13 weeks |
| Ingestion | liver kidney and/or bladder | Not classified | Multiple animal species | NOAEL 2,500 mg/kg/day | 13 weeks |
| Ingestion | hematopoietic system | Not classified | Mouse | NOAEL 600 | 14 days |
| Ingestion | endocrine system | Not classified | Mouse | NOAEL 105 | 28 days |
| Ingestion | immune system | Not classified | Mouse | NOAEL 105 | 4 weeks |
| Inhalation | liver | Not classified | Rat | NOAEL 24 | 90 days |
| Inhalation | auditory system | Not classified | Rat | NOAEL 1.7 | 90 days |
| Inhalation | kidney and/or bladder | Not classified | Rabbit | NOAEL 2.7 | 10 weeks |
| Inhalation | hematopoietic | Not classified | Mouse | NOAEL 24 | 14 weeks |
| Inhalation | peripheral nervous | Not classified | Rat | NOAEL 8.6 | 30 weeks |
| Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | NOAEL 1.1 mg/l | 28 days |
| Inhalation | endocrine system hematopoietic system liver immune system kidney and/or bladder | Not classified | Rat | NOAEL 6.1 mg/l | 28 days |
| | Inhalation Ingestion Ingestion Inhalation Inhalation Inhalation Inhalation Inhalation Inhalation Inhalation Inhalation Inhalation Ingestion Ingestion Ingestion Ingestion Ingestion Ingestion Inhalation | Inhalation peripheral nervous system lingestion peripheral nervous system lingestion lindalation peripheral nervous system lindalation peripheral nervous system lindalation peripheral nervous lindalation nervous system lindalation nervous system lindalation lindalation lindalation lindalation lindalation liver kidney and/or bladder lindalation liver lindalation liver kidney and/or hair lindalation liver lindalation liver lindalation liver kidney and/or bladder lingestion liver kidney and/or bladder lingestion liver lindalation lindalation liver lindalation lindalation lindalation lindalation lindalation lindalation lindalation liver lindalation liv | Inhalation peripheral nervous system Ingestion kidney and/or bladder Causes damage to organs through prolonged or repeated exposure Inhalation nervous system May cause damage to organs through prolonged or repeated exposure Some positive data exist, but the data are not sufficient for classified Inhalation heart liver kidney and/or bladder Inhalation limination limination heart liver kidney and/or bladder Inhalation limination heart liver kidney and/or bladder Inhalation limination limination heart liver kidney and/or bladder Not classified Inhalation limination limination heart liver kidney and/or bladder Not classified Inhalation limination limination limination limination limination system Not classified Not classified Inhalation gastrointestinal tract Not classified Ingestion heart Not classified Not classified Ingestion liver kidney and/or bladder Not classified Ingestion liver kidney and/or bladder Not classified Ingestion liver kidney and/or bladder Not classified Inhalation liver Not classified Not classified Inhalation Peripheral nervous Some positive data exist, but the data are not sufficient for classification Not classified Not classified Inhalation Peripheral nervous Some positive data exist, but the data are not sufficient for classification Not classified Not cl | Inhalation peripheral nervous system peripheral nervous system lingestion kidney and/or bladder linhalation nervous system eyes olfactory system system system lingestion nervous system linhalation nervous system data are not sufficient for classified linhalation nervous system linhalation nervous system May cause damage to organs through prolonged or repeated exposure system linhalation neart liver kidney and/or bladder linhalation neart liver kidney and/or bladder linhalation neart liver kidney and/or bladder linhalation limmune system Not classified Mouse linhalation linhalation limmune system Not classified Mouse linhalation lingestion lingestion liner kidney and/or bladder Not classified linhalation lingestion linhalation liver kidney and/or bladder Not classified Rat linhalation linhalation lematopoietic system lematopoietic linhalation lendocrine system lematopoietic linhalation lendocrine system lendocr | Inhalation peripheral nervous system Not classified Rat No.AEL Not available No. |

Page: 18 of 28

| | | | | | mg/kg/day | |
|----------------|------------|--|--|-------------------------------|-----------------------------|-----------|
| ZINC OXIDE | Ingestion | endocrine system hematopoietic system kidney and/or bladder | Not classified | Other | NOAEL 500 mg/kg/day | 6 months |
| 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 |
| Xylene | Inhalation | nervous system | Causes damage to organs through prolonged or repeated exposure | Rat | LOAEL 0.4 mg/l | 4 weeks |
| Xylene | Inhalation | auditory system | May cause damage to organs though prolonged or repeated exposure | Rat | LOAEL 7.8 mg/l | 5 days |
| Xylene | Inhalation | liver | Not classified | Multiple animal species | NOAEL Not available | |
| Xylene | Inhalation | heart endocrine system gastrointestinal tract hematopoietic system muscles kidney and/or bladder respiratory system | Not classified | Multiple animal species | NOAEL 3.5 mg/l | 13 weeks |
| Xylene | Ingestion | auditory system | Not classified | Rat | NOAEL 900 mg/kg/day | 2 weeks |
| Xylene | Ingestion | kidney and/or bladder | Not classified | Rat | NOAEL 1,500 mg/kg/day | 90 days |
| Xylene | Ingestion | liver | Not classified | Multiple animal species | NOAEL Not available | |
| Xylene | Ingestion | heart skin endocrine system bone, teeth, nails, and/or hair hematopoietic system immune system nervous system respiratory system | Not classified | Mouse | NOAEL 1,000 mg/kg/day | 103 weeks |
| METHYL ALCOHOL | Inhalation | liver | Not classified | Rat | NOAEL 6.55 mg/l | 4 weeks |
| METHYL ALCOHOL | Inhalation | respiratory system | Not classified | Rat | NOAEL 13.1 mg/l | 6 weeks |
| METHYL ALCOHOL | Ingestion | liver nervous system | Not classified | Rat | NOAEL 2,500 mg/kg/day | 90 days |

Aspiration Hazard

| Name | Value |
|---|-------------------|
| NAPHTHA(PETROLEUM), SOLVENT-REFINED LIGHT | Aspiration hazard |
| 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 |
| Xylene | 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 | Туре | Exposure | Test Endpoint | Test Result |
|------------|------------|---------------|-----------|----------|---------------|-------------|
| NAPHTHA(PE | 64741-84-0 | Green Algae | Estimated | 72 hours | EC50 | 30 mg/l |
| TROLEUM), | | | | | | |
| SOLVENT- | | | | | | |
| REFINED | | | | | | |
| LIGHT | | | | | | |
| NAPHTHA(PE | 64741-84-0 | Rainbow Trout | Estimated | 96 hours | LL50 | 11.4 mg/l |
| TROLEUM), | | | | | | |
| SOLVENT- | | | | | | |
| REFINED | | | | | | |
| LIGHT | | | | | | |
| NAPHTHA(PE | 64741-84-0 | Water flea | Estimated | 48 hours | EL50 | 3 mg/l |
| TROLEUM), | | | | | | |
| SOLVENT- | | | | | | |
| REFINED | | | | | | |
| LIGHT | | | | | | |
| NAPHTHA(PE | 64741-84-0 | Green Algae | Estimated | 72 hours | NOEL | 3 mg/l |
| TROLEUM), | | | | | | |
| SOLVENT- | | | | | | |
| REFINED | | | | | | |
| LIGHT | | | | | | |
| NAPHTHA(PE | 64741-84-0 | Water flea | Estimated | 21 days | NOEL | 1 mg/l |

| TDOLELIM) | | 1 | | | | |
|---------------------------|------------|-------------------|--|----------|------|-------------|
| TROLEUM), SOLVENT- | | | | | | |
| REFINED | | | | | | |
| LIGHT | | | | | | |
| HEXANE | 110-54-3 | Fathead Minnow | Experimental | 96 hours | LC50 | 2.5 mg/l |
| 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 | Crustecea other | | 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 |
| MAGNESIUM RESINATE | 25085-50-1 | | Data not available or insufficient for classification | | | N/A |
| 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 KETONE | 78-93-3 | Water flea | Experimental | 48 hours | EC50 | 308 mg/l |
| METHYL ETHYL KETONE | 78-93-3 | Green Algae | Experimental | 96 hours | EC10 | 1,289 mg/l |
| METHYL ETHYL KETONE | 78-93-3 | Water flea | Experimental | 21 days | NOEC | 100 mg/l |
| METHYLCYC LOPENTANE | 96-37-7 | | Data not available or insufficient for classification | | | N/A |
| POLYCHLOR OPRENE | 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- METHYLPEN TANE | 107-83-5 | | Data not available or insufficient for classification | | | N/A |
| 3- METHYLPEN | 96-14-0 | | Data not available or | | | N/A |

| TANE | | - | insufficient for | | | |
|--------------------|-----------|------------------------|--|----------|------|-------------------|
| TANE | | | classification | | | |
| 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 |
| | | | 1 | | | Weight) |
| CYCLOHEXA NE | 110-82-7 | Bacteria | Experimental | 24 hours | IC50 | 97 mg/l |
| CYCLOHEXA NE | 110-82-7 | Fathead Minnow | Experimental | 96 hours | LC50 | 4.53 mg/l |
| CYCLOHEXA NE | 110-82-7 | Water flea | Experimental | 48 hours | EC50 | 0.9 mg/l |
| MAGNESIUM OXIDE | 1309-48-4 | | Data not available or insufficient for classification | | | N/A |
| 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 | | 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 | | 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 |
| ETHYLBENZ ENE | 100-41-4 | Activated sludge | Experimental | 49 hours | EC50 | 130 mg/l |
| ETHYLBENZ ENE | 100-41-4 | Atlantic Silverside | Experimental | 96 hours | LC50 | 5.1 mg/l |
| ETHYLBENZ ENE | 100-41-4 | Green Algae | Experimental | 96 hours | EC50 | 3.6 mg/l |
| ETHYLBENZ ENE | 100-41-4 | Mysid Shrimp | Experimental | 96 hours | LC50 | 2.6 mg/l |

12.2. Persistence and degradability

| Material | CAS No. | Test Type | Duration | Study Type | Test Result | Protocol |
|------------|------------|----------------|----------|------------|-------------|--------------------|
| NAPHTHA(PE | 64741-84-0 | Estimated | 28 days | Biological | 98 % | OECD 301F - |
| TROLEUM), | | Biodegradation | - | Oxygen | BOD/ThBOD | Manometric Respiro |
| SOLVENT- | | | | Demand | | |

Page: 23 of 28

| REFINED | | | | | | |
|---------------------------|------------|--------------------------------|---------|-----------------------------------|---|-----------------------------------|
| LIGHT | | | | | | |
| HEXANE | 110-54-3 | Experimental Photolysis | | Photolytic half- life (in air) | 5.4 days (t 1/2) | Non-standard method |
| HEXANE | 110-54-3 | Experimental Bioconcentrati on | 28 days | Biological Oxygen Demand | 100 % weight | OECD 301C - MITI (I) |
| ACETONE | 67-64-1 | Experimental Photolysis | | Photolytic half- life (in air) | 147 days (t 1/2) | |
| ACETONE | 67-64-1 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 78 % BOD/ThBOD | OECD 301D - Closed Bottle Test |
| MAGNESIUM RESINATE | 25085-50-1 | Experimental Biodegradation | 28 days | Carbon dioxide evolution | 0 %CO2 evolution/THC O2 evolution | |
| METHYL ETHYL KETONE | 78-93-3 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 98 % BOD/ThBOD | OECD 301D - Closed Bottle Test |
| METHYLCYC LOPENTANE | 96-37-7 | Estimated Photolysis | | Photolytic half- life (in air) | 5.33 days (t 1/2) | Non-standard method |
| METHYLCYC LOPENTANE | 96-37-7 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 2 % BOD/ThBOD | OECD 301C - MITI (I) |
| POLYCHLOR OPRENE | 9010-98-4 | Data not availbl-insufficient | | | N/A | |
| HEPTANE | 142-82-5 | Experimental Photolysis | | Photolytic half- life (in air) | 4.24 days (t 1/2) | Non-standard method |
| HEPTANE | 142-82-5 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 101 % BOD/ThBOD | OECD 301C - MITI (I) |
| 2- METHYLPEN TANE | 107-83-5 | Experimental Photolysis | | Photolytic half- life (in air) | 5.4 days (t 1/2) | Non-standard method |
| 2- METHYLPEN TANE | 107-83-5 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 93 % BOD/ThBOD | OECD 301C - MITI (I) |
| 3- METHYLPEN TANE | 96-14-0 | Experimental Photolysis | | life (in air) | | Non-standard method |
| 3- METHYLPEN TANE | 96-14-0 | Estimated Biodegradation | 28 days | Biological Oxygen Demand | 93 % 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 |
| CYCLOHEXA NE | 110-82-7 | Experimental Photolysis | | Photolytic half- life (in air) | 4.14 days (t 1/2) | Non-standard method |
| CYCLOHEXA NE | 110-82-7 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 77 % BOD/ThBOD | OECD 301F - Manometric Respiro |
| MAGNESIUM | 1309-48-4 | Data not | | | N/A | |

| OXIDE | | availbl- insufficient | | | | |
|-----------------------|------------|-------------------------------|---------|-----------------------------------|---|-----------------------------------|
| Methyl Acetate | 79-20-9 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 70 % weight | OECD 301D - Closed Bottle Test |
| ROSIN | 8050-09-7 | Experimental Biodegradation | 28 days | Carbon dioxide evolution | 64 % weight | OECD 301B - Mod. Sturm or CO2 |
| ZINC OXIDE | 1314-13-2 | Data not availbl-insufficient | | | N/A | |
| ETHYLBENZ ENE | 100-41-4 | Experimental Photolysis | | Photolytic half- life (in air) | 4.26 days (t 1/2) | Non-standard method |
| ETHYLBENZ ENE | 100-41-4 | Experimental Biodegradation | 28 days | Carbon dioxide evolution | 70-80 %CO2 evolution/THC O2 evolution | ISO 14593 Inorg C Headspace |
| STYRENATE D PHENOL | 61788-44-1 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 7 % BOD/ThBOD | OECD 301F - Manometric Respiro |
| Xylene | 1330-20-7 | Experimental Photolysis | | Photolytic half- life (in air) | 1.4 days (t 1/2) | |
| Xylene | 1330-20-7 | Experimental Biodegradation | 28 days | Biological Oxygen Demand | 90-98 % BOD/ThBOD | OECD 301F - Manometric Respiro |
| METHYL ALCOHOL | 67-56-1 | Experimental Biodegradation | 14 days | Biological Oxygen Demand | 92 % BOD/ThBOD | OECD 301C - MITI (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 | Biological Oxygen Demand | 63 % weight | OECD 301F - Manometric Respiro |

12.3. Bioaccumulative potential

| Material | CAS No. | 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 | | | | | | |
| HEXANE | 110-54-3 | Estimated | | Bioaccumulatio | 50 | Est: Bioconcentration |
| | | Bioconcentrati | | n Factor | | factor |
| | | on | | | | |
| ACETONE | 67-64-1 | Experimental | | Bioaccumulatio | 0.65 | |
| | | BCF - Other | | n Factor | | |
| ACETONE | 67-64-1 | Experimental | | Log of | -0.24 | |
| | | Bioconcentrati | | Octanol/H2O | | |
| | | on | | part. coeff | | |
| MAGNESIUM | 25085-50-1 | Estimated | | Bioaccumulatio | 7.4 | Non-standard method |
| RESINATE | | Bioconcentrati | | n Factor | | |
| | | on | | | | |
| METHYL | 78-93-3 | Experimental | | Log of | 0.29 | Non-standard method |
| ETHYL | | Bioconcentrati | | Octanol/H2O | | |
| KETONE | | on | | part. coeff | | |

| METHYLCYC | 96-37-7 | Experimental | | Log of | 3.37 | Non-standard method |
|-------------------------|------------|--|----------|--------------------------------------|-------|-----------------------------------|
| LOPENTANE | | Bioconcentrati | | Octanol/H2O | | |
| | | on | | part. coeff | | |
| POLYCHLOR OPRENE | 9010-98-4 | Data not available or insufficient for classification | N/A | N/A | N/A | N/A |
| HEPTANE | 142-82-5 | Estimated Bioconcentrati on | | Bioaccumulatio n Factor | 105 | Est: Bioconcentration factor |
| 2- METHYLPEN TANE | 107-83-5 | Estimated Bioconcentrati on | | Bioaccumulatio n Factor | 63 | Non-standard method |
| 3- METHYLPEN TANE | 96-14-0 | Estimated Bioconcentrati on | | Bioaccumulatio n Factor | 150 | Est: Bioconcentration factor |
| 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 | |
| CYCLOHEXA NE | 110-82-7 | Experimental BCF-Carp | 56 days | Bioaccumulatio n Factor | 129 | OECD 305E-Bioaccum Fl-thru fis |
| 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 of Octanol/H2O part. coeff | 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 | ≤217 | OECD 305E-Bioaccum Fl-thru fis |
| ETHYLBENZ ENE | 100-41-4 | Experimental BCF - Salmon | 42 days | Bioaccumulatio n Factor | 1 | Non-standard method |
| STYRENATE D PHENOL | 61788-44-1 | Experimental BCF - Rainbow Trout | 10 days | Bioaccumulatio n Factor | 10395 | |
| Xylene | 1330-20-7 | Experimental BCF - Rainbow Trout | 56 days | Bioaccumulatio n Factor | 25.9 | |
| METHYL ALCOHOL | 67-56-1 | Experimental Bioconcentrati on | | Log of Octanol/H2O part. coeff | -0.77 | Non-standard method |
| BENZENE | 71-43-2 | Experimental Bioconcentrati on | | Log of Octanol/H2O part. coeff | 2.13 | Non-standard method |

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Disposal methods

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

SECTION 14: Transport Information

Marine Transport (IMDG)

UN Number: UN1133

Proper Shipping Name: ADHESIVES **Technical Name:** None assigned.

Hazard Class/Division:3

Subsidiary Risk: None assigned.

Packing Group: II Limited Quantity: Yes

Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

Air Transport (IATA)

UN Number: UN1133

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

Packing Group:II

Limited Quantity: None assigned. Marine Pollutant: None assigned.

Marine Pollutant Technical Name: None assigned.

Other Dangerous Goods Descriptions:

None assigned.

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

SECTION 15: Regulatory information

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

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of 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.

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