

RESENE THINNER No. 5

Resene Paints LTD

Version No: 1.2
Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Issue Date: 23/03/2021
Print Date: 23/03/2021
L.GHS.NZL.EN

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

| | |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name | RESENE THINNER No. 5 |
| Chemical Name | Not Applicable |
| Synonyms | Not Available |
| Proper shipping name | PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound) |
| Other means of identification | Not Available |

Relevant identified uses of the substance or mixture and uses advised against

| | |
|--------------------------|------|
| Relevant identified uses | 6442 |
|--------------------------|------|

Details of the supplier of the safety data sheet

| | |
|-------------------------|--------------------------------------------------------|
| Registered company name | Resene Paints LTD |
| Address | 32-50 Vogel Street Wellington 5011 New Zealand |
| Telephone | +64 4 5770500 |
| Fax | +64 4 5773327 |
| Website | www.resene.co.nz |
| Email | advice@resene.co.nz |

Emergency telephone number

| | | |
|-----------------------------------|-------------------------|------------------------------|
| Association / Organisation | NZ POISONS (24hr 7days) | CHEMWATCH EMERGENCY RESPONSE |
| Emergency telephone numbers | 0800 764766 | +61 2 9186 1132 |
| Other emergency telephone numbers | Not Available | +64 800 700 112 |

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

| | |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Classification [1] | Specific target organ toxicity - repeated exposure Category 2, Acute Aquatic Hazard Category 3, Flammable Liquid Category 2, Acute Toxicity (Inhalation) Category 4, Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2, Reproductive Toxicity Category 2, Aspiration Hazard Category 1, Chronic Aquatic Hazard Category 3, Acute Vertebrate Hazard Category 3 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |
| Determined by Chemwatch using GHS/HSNO criteria | 3.1B, 6.1D (inhalation), 6.1D (oral), 6.1E (aspiration), 6.3A, 6.4A, 6.8B, 6.9B, 9.1C, 9.1D, 9.3C |

Label elements

| | |
|---------------------|-------------------------------------------------------------------------------------|
| Hazard pictogram(s) |  |
| Signal word | Danger |

Hazard statement(s)

| | |
|------|-----------------------------------------------------------------------------------------------|
| H373 | May cause damage to organs through prolonged or repeated exposure. (Oral, Dermal, Inhalation) |
| H225 | Highly flammable liquid and vapour. |
| H332 | Harmful if inhaled. |
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H361 | Suspected of damaging fertility or the unborn child. |

RESENE THINNER No. 5

| | |
|------|----------------------------------------------------|
| H304 | May be fatal if swallowed and enters airways. |
| H412 | Harmful to aquatic life with long lasting effects. |
| H433 | Harmful to terrestrial vertebrates. |

Precautionary statement(s) Prevention

| | |
|------|------------------------------------------------------------------------------------------------|
| P201 | Obtain special instructions before use. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P233 | Keep container tightly closed. |
| P260 | Do not breathe mist/vapours/spray. |
| P271 | Use in a well-ventilated area. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P240 | Ground and bond container and receiving equipment. |
| P241 | Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment. |
| P242 | Use non-sparking tools. |
| P243 | Take action to prevent static discharges. |
| P270 | Do not eat, drink or smoke when using this product. |

Precautionary statement(s) Response

| | |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider. |
| P308+P313 | IF exposed or concerned: Get medical advice/ attention. |
| P331 | Do NOT induce vomiting. |
| P370+P378 | In case of fire: Use alcohol resistant foam or normal protein foam to extinguish. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider/if you feel unwell. |
| P302+P352 | IF ON SKIN: Wash with plenty of water and soap. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P330 | Rinse mouth. |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |

Precautionary statement(s) Storage

| | |
|-----------|----------------------------------------------|
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P405 | Store locked up. |

Precautionary statement(s) Disposal

| | |
|------|----------------------------------------------------------------------------------------------------------------------------------|
| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
|------|----------------------------------------------------------------------------------------------------------------------------------|

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Ingredients are required by the Hazard Substances (Safety Data Sheets) Notice 2017 to be identified:

Mixtures

| CAS No | %[weight] | Name |
|----------|-----------|--------------------------|
| 110-82-7 | 10-20 | <u>cyclohexane</u> |
| 108-87-2 | 1-10 | <u>methylcyclohexane</u> |
| 110-54-3 | 1-10 | <u>n-hexane</u> |
| 108-88-3 | 50-60 | <u>toluene</u> |

SECTION 4 First aid measures

Description of first aid measures

| | |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye Contact | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ Wash out immediately with fresh running water. ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▶ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

RESENE THINNER No. 5

| | |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin Contact | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation. |
| Inhalation | <p>If aerosols, fumes or combustion products are inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop seek medical attention.</p> |
| Ingestion | <ul style="list-style-type: none"> ▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice. |

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures**Extinguishing media**

- ▶ Foam.

Special hazards arising from the substrate or mixture

| | |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fire Incompatibility | <ul style="list-style-type: none"> ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Advice for firefighters

| | |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fire Fighting | <ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> ▶ Liquid and vapour are highly flammable. <p>Combustion products include: carbon dioxide (CO₂) other pyrolysis products typical of burning organic material.</p> <p>Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.</p> |

SECTION 6 Accidental release measures**Personal precautions, protective equipment and emergency procedures**

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

| | |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minor Spills | <p>Remove all ignition sources. Contain spill with inert non-combustible absorbent then place in suitable, labelled container for waste disposal. Wipe up. Clean area with large quantity of water to complete clean-up.</p> |
| Major Spills | <p>Remove all ignition sources. Clear area of personnel and move upwind. Wear appropriate personnel protective equipment and clothing to prevent exposure. Avoid breathing in mists or vapours and skin or eyes contact. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authority.</p> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage**Precautions for safe handling**

| | |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safe handling | <ul style="list-style-type: none"> ▶ Containers, even those that have been emptied, may contain explosive vapours. ▶ Electrostatic discharge may be generated during pumping - this may result in fire. ▶ Avoid unnecessary personal contact, including inhalation. ▶ DO NOT allow clothing wet with material to stay in contact with skin |
| Other information | <ul style="list-style-type: none"> ▶ Store in original containers in approved flame-proof area. |

Conditions for safe storage, including any incompatibilities

| | |
|---------------------------|------------------------------------------------------------------------------------------|
| Suitable container | <ul style="list-style-type: none"> ▶ Packing as supplied by manufacturer. |
|---------------------------|------------------------------------------------------------------------------------------|

RESENE THINNER No. 5

| | |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <ul style="list-style-type: none"> ▸ For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. |
| Storage incompatibility | <ul style="list-style-type: none"> ▸ reacts violently with strong oxidisers, bromine, hydrochloric acid/ sulfuric acid mixture, concentrated nitric acid ▸ forms explosive mixtures with strong acids, strong oxidisers, ▸ attacks some plastics, rubber and coatings ▸ may generate electrostatic charges, due to low conductivity, on flow or agitation. |

SECTION 8 Exposure controls / personal protection**Control parameters****Occupational Exposure Limits (OEL)****INGREDIENT DATA**

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|------------------------------------------------|-------------------|-------------------|----------------------------------|----------------------------------|---------------|--------------------------------------------------------------|
| New Zealand Workplace Exposure Standards (WES) | cyclohexane | Cyclohexane | 100 ppm / 350 mg/m ³ | 1050 mg/m ³ / 300 ppm | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | methylcyclohexane | Methylcyclohexane | 400 ppm / 1610 mg/m ³ | Not Available | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | n-hexane | Hexane (n-Hexane) | 20 ppm / 72 mg/m ³ | Not Available | Not Available | bio-Exposure can also be estimated by biological monitoring. |
| New Zealand Workplace Exposure Standards (WES) | toluene | Toluene (Toluol) | 50 ppm / 188 mg/m ³ | Not Available | Not Available | skin-Skin absorption |

Emergency Limits

| Ingredient | TEEL-1 | TEEL-2 | TEEL-3 |
|-------------------|---------------|---------------|---------------|
| cyclohexane | 300 ppm | 1700* ppm | 10000** ppm |
| methylcyclohexane | 1200* ppm | 1700* ppm | 10000** ppm |
| n-hexane | 260 ppm | Not Available | Not Available |
| toluene | Not Available | Not Available | Not Available |

| Ingredient | Original IDLH | Revised IDLH |
|-------------------|---------------|---------------|
| cyclohexane | 1,300 ppm | Not Available |
| methylcyclohexane | 1,200 ppm | Not Available |
| n-hexane | 1,100 ppm | Not Available |
| toluene | 500 ppm | Not Available |

MATERIAL DATA**IFRA Prohibited Fragrance Substance**

The International Fragrance Association (IFRA) Standards form the basis for the globally accepted and recognized risk management system for the safe use of fragrance ingredients and are part of the IFRA Code of Practice.

For methylcyclohexane:

High concentrations produce narcosis in animals.

For cyclohexane:

Odour Threshold Value: 784 ppm (detection)

NOTE: Detector tubes for cyclohexane, measuring in excess of 100 ppm are commercially available.

for: hexane, isomers (excluding n-hexane)

The TLV-TWA is thought to be protective against nausea, headache, upper respiratory tract irritation and CNS depression.

For n-hexane:

Odour Threshold Value: 65 ppm


NOTE: Detector tubes for n-hexane, measuring in excess of 100 ppm, are available commercially.

For toluene:

Odour Threshold Value: 0.16-6.7 (detection), 1.9-69 (recognition)

NOTE: Detector tubes measuring in excess of 5 ppm, are available.

Exposure controls

| | |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appropriate engineering controls | Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. |
| Personal protection |  |
| Eye and face protection | ▸ Safety glasses with side shields. |
| Skin protection | See Hand protection below |
| Hands/feet protection | <ul style="list-style-type: none"> ▸ Wear chemical protective gloves, e.g. PVC. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. |
| Body protection | Overalls |
| Respiratory protection | Where the concentration of vapours in the breathing zone approaches or exceeds the "Exposure Standards" respiratory protection is required. Type A Filter of sufficient capacity. |

RESENE THINNER No. 5

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

| | | | |
|-----------------------------------------------------|-------------------|------------------------------------------------|---------------|
| Appearance | clear liquid | | |
| Physical state | Liquid | Relative density (Water = 1) | 0.79 |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | 365 |
| pH (as supplied) | Not Available | Decomposition temperature | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | 93 | Molecular weight (g/mol) | Not Available |
| Flash point (°C) | -2 | Taste | Not Available |
| Evaporation rate | 3.9 BuAC = 1 | Explosive properties | Not Available |
| Flammability | HIGHLY FLAMMABLE. | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | 7.0 | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | 1.2 | Volatile Component (%vol) | 100 |
| Vapour pressure (kPa) | 4.88 | Gas group | Not Available |
| Solubility in water | Immiscible | pH as a solution (1%) | Not Available |
| Vapour density (Air = 1) | 3.1 | VOC g/L | 785 |

SECTION 10 Stability and reactivity

| | |
|-------------------------------------------|---------------|
| Reactivity | See section 7 |
| Chemical stability | ▶ stable |
| Possibility of hazardous reactions | See section 7 |
| Conditions to avoid | See section 7 |
| Incompatible materials | See section 7 |
| Hazardous decomposition products | See section 5 |

SECTION 11 Toxicological information

Information on toxicological effects

| | |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhaled | Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. Inhalation of vapours may cause drowsiness and dizziness. Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordination. Central nervous system (CNS) depression may include nonspecific discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. The acute toxicity of inhaled alkylbenzenes is best described by central nervous system depression. |
| Ingestion | Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result. Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. |
| Skin Contact | The material may accentuate any pre-existing dermatitis condition. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. |
| Eye | Evidence exists, or practical experience predicts, that the material may cause severe eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. The liquid produces a high level of eye discomfort and is capable of causing pain and severe conjunctivitis. |
| Chronic | Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Serious damage (clear functional disturbance or morphological change which may have toxicological significance) is likely to be caused by repeated or prolonged exposure. |

RESENE THINNER No. 5

| | | |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| | Exposure to the material may cause concerns for human fertility, generally on the basis that results in animal studies provide sufficient evidence to cause a strong suspicion of impaired fertility in the absence of toxic effects, or evidence of impaired fertility occurring at around the same dose levels as other toxic effects, but which are not a secondary non-specific consequence of other toxic effects. On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment. | |
| RESENE THINNER No. 5 | TOXICITY | IRRITATION |
| | Not Available | Not Available |
| cyclohexane | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >2000 mg/kg ^[2] | Eye: no adverse effect observed (not irritating) ^[1] |
| | Inhalation(Rat) LC50; >5540 ppm ^[1] | Skin(rabbit): 1548 mg/48hr - mild |
| | Oral(Rabbit) LD50; 5.5 mg/kg ^[2] | Skin: adverse effect observed (irritating) ^[1] |
| | | Skin: no adverse effect observed (not irritating) ^[1] |
| methylcyclohexane | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >2000 mg/kg ^[1] | Not Available |
| | Inhalation(Dog) LC50; >4.075 mg/l ^[1] | |
| | Oral(Mouse) LD50; 1200 mg/kg ^[2] | |
| n-hexane | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >7.572 mg/kg ^[1] | Eye(rabbit): 10 mg - mild |
| | Inhalation(Rat) LC50; 48000 ppm ^[2] | |
| | Oral(Rat) LD50; 36.347 mg/kg ^[1] | |
| toluene | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >5000 mg/kg ^[1] | Eye (rabbit): 2mg/24h - SEVERE |
| | Inhalation(Rat) LC50; 12.528.8 mg/l ^[2] | Eye (rabbit):0.87 mg - mild |
| | Oral(Rat) LD50; 636 mg/kg ^[2] | Eye (rabbit):100 mg/30sec - mild |
| | | Eye: adverse effect observed (irritating) ^[1] |
| | | Skin (rabbit):20 mg/24h-moderate |
| | | Skin (rabbit):500 mg - moderate |
| | Skin: adverse effect observed (irritating) ^[1] | |
| | Skin: no adverse effect observed (not irritating) ^[1] | |
| Legend: | 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances | |

| | | | |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|
| RESENE THINNER No. 5 | Data demonstrate that during inhalation exposure,aromatic hydrocarbons undergo substantial partitioning into adipose tissues. | | |
| CYCLOHEXANE | Bacteria mutagen | | |
| N-HEXANE | The material may be irritating to the eye, with prolonged contact causing inflammation. | | |
| TOLUENE | The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). | | |
| RESENE THINNER No. 5 & TOLUENE | For toluene: Acute Toxicity Humans exposed to intermediate to high levels of toluene for short periods of time experience adverse central nervous system effects ranging from headaches to intoxication, convulsions, narcosis, and death. | | |
| Acute Toxicity | ✓ | Carcinogenicity | ✗ |
| Skin Irritation/Corrosion | ✓ | Reproductivity | ✓ |
| Serious Eye Damage/Irritation | ✓ | STOT - Single Exposure | ✗ |
| Respiratory or Skin sensitisation | ✗ | STOT - Repeated Exposure | ✓ |
| Mutagenicity | ✗ | Aspiration Hazard | ✓ |

Legend: ✗ – Data either not available or does not fill the criteria for classification
 ✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

Continued...

RESENE THINNER No. 5

| RESENE THINNER No. 5 | Endpoint | Test Duration (hr) | Species | Value | Source |
|----------------------|----------|--------------------|---------------|---------------|---------------|
| | | Not Available | Not Available | Not Available | Not Available |

| cyclohexane | Endpoint | Test Duration (hr) | Species | Value | Source |
|-------------|-----------|--------------------|-------------------------------|-----------|--------|
| | LC50 | 96 | Fish | 4.53mg/l | 2 |
| | EC50 | 48 | Crustacea | 0.9mg/l | 2 |
| | BCF | 1344 | Fish | 31-102 | 7 |
| | EC50 | 72 | Algae or other aquatic plants | 3.428mg/l | 2 |
| | EC50(ECx) | 48 | Crustacea | 0.9mg/l | 2 |
| | EC50 | 96 | Algae or other aquatic plants | 2.17mg/l | 2 |

| methylcyclohexane | Endpoint | Test Duration (hr) | Species | Value | Source |
|-------------------|-----------|-------------------------------|-------------------------------|-----------|--------|
| | LC50 | 96 | Fish | 2.07mg/l | 2 |
| | EC50 | 48 | Crustacea | 0.326mg/l | 2 |
| | BCF | 1344 | Fish | 95-321 | 7 |
| | NOEC(ECx) | 72 | Algae or other aquatic plants | 0.022mg/l | 2 |
| EC50 | 72 | Algae or other aquatic plants | 0.134mg/l | 2 | |

| n-hexane | Endpoint | Test Duration (hr) | Species | Value | Source |
|----------|-----------|--------------------|-------------------------------|--------------------|--------|
| | EC50(ECx) | 240 | Algae or other aquatic plants | 25.023-137.802mg/L | 4 |

| toluene | Endpoint | Test Duration (hr) | Species | Value | Source |
|---------|-----------|-------------------------------|------------|------------------|--------|
| | LC50 | 96 | Fish | >1.055<1.809mg/L | 4 |
| | EC50 | 48 | Crustacea | 3.78mg/L | 5 |
| | NOEC(ECx) | 96 | Crustacea | 0.104mg/L | 4 |
| EC50 | 96 | Algae or other aquatic plants | >1.632mg/L | 4 | |

Legend: *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark.

When spilled this product may act as a typical oil, causing a film, sheen, emulsion or sludge at or beneath the surface of the body of water.

For aromatic hydrocarbons:

Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus.

For n-hexane:

log Kow: 3.17-3.94

BOD 5 if unstated: 2.21

COD: 0.04

ThOD: 3.52

Environmental fate:

Transport and Partitioning: The physical properties of n-hexane that affect its transport and partitioning in the environment are: water solubility of 9.5 mg/L; log[Kow] (octanol/water partition coefficient), estimated as 3.29; Henry's law constant, 1.69 atm-m³ mol; vapor pressure, 150 mm Hg at 25 C; and log[Koc] in the range of 2.90 to 3.61.

For cyclohexanes:

log Kow: 3.44

Water solubility: 54.8 mg/l (25 C)

Vapour pressure 97.6 mm Hg (25 C)

Henry's Law Constant: 0.193 atm-m³/mole

Koc : 480

Half-life (hr) air : 6-52

Half-life (hr) H₂O surface water : 2

ThOD : 3.42

BCF : 242

Environmental fate:

Terrestrial fate: If released on land cyclohexane will be lost by volatilisation and should leach into the ground.

For toluene:

log Kow : 2.1-3

log Koc : 1.12-2.85

Koc : 37-260

log Kom : 1.39-2.89

Half-life (hr) air : 2.4-104

Half-life (hr) H₂O surface water : 5.55-528

Half-life (hr) H₂O ground : 168-2628

Half-life (hr) soil : <48-240

Henry's Pa m³ /mol: 518-694

Henry's atm m³ /mol: 5.94E-03

BOD 5 0.86-2.12, 5%

COD : 0.7-2.52,21-27%

ThOD : 3.13

BCF : 1.67-380

log BCF : 0.22-3.28

RESENE THINNER No. 5

Environmental fate:

Transport: The majority of toluene evaporates to the atmosphere from the water and soil. It is moderately retarded by adsorption to soils rich in organic material (Koc = 259), therefore, transport to ground water is dependent on the soil composition.

DO NOT discharge into sewer or waterways.

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|-------------------|-----------------------------|-----------------------------|
| cyclohexane | HIGH (Half-life = 360 days) | LOW (Half-life = 3.63 days) |
| methylcyclohexane | LOW | LOW |
| n-hexane | LOW | LOW |
| toluene | LOW (Half-life = 28 days) | LOW (Half-life = 4.33 days) |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|-------------------|-----------------------|
| cyclohexane | LOW (BCF = 242) |
| methylcyclohexane | LOW (BCF = 321) |
| n-hexane | MEDIUM (LogKOW = 3.9) |
| toluene | LOW (BCF = 90) |

Mobility in soil

| Ingredient | Mobility |
|-------------------|-------------------|
| cyclohexane | LOW (KOC = 165.5) |
| methylcyclohexane | LOW (KOC = 268) |
| n-hexane | LOW (KOC = 149) |
| toluene | LOW (KOC = 268) |

SECTION 13 Disposal considerations**Waste treatment methods**

| | |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product / Packaging disposal | <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory.</p> <ul style="list-style-type: none"> ▶ DO NOT allow wash water from cleaning or process equipment to enter drains. ▶ Recycle wherever possible. |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package.

SECTION 14 Transport information**Labels Required**

| | |
|-------------------------|-------------------------------------------------------------------------------------|
| |  |
| Marine Pollutant | NO |
| HAZCHEM | *3YE |

Land transport (UN)

| | | | | | |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|------------------|----------------|
| UN number | 1263 | | | | |
| UN proper shipping name | PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound) | | | | |
| Transport hazard class(es) | <table border="1"> <tr> <td>Class</td> <td>3</td> </tr> <tr> <td>Subrisk</td> <td>Not Applicable</td> </tr> </table> | Class | 3 | Subrisk | Not Applicable |
| Class | 3 | | | | |
| Subrisk | Not Applicable | | | | |
| Packing group | II | | | | |
| Environmental hazard | Not Applicable | | | | |
| Special precautions for user | <table border="1"> <tr> <td>Special provisions</td> <td>163; 367</td> </tr> <tr> <td>Limited quantity</td> <td>5 L</td> </tr> </table> | Special provisions | 163; 367 | Limited quantity | 5 L |
| Special provisions | 163; 367 | | | | |
| Limited quantity | 5 L | | | | |

Air transport (ICAO-IATA / DGR)

| | |
|------------------|------|
| UN number | 1263 |
|------------------|------|

RESENE THINNER No. 5

| | | |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| UN proper shipping name | Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base); Paint related material (including paint thinning or reducing compounds) | |
| Transport hazard class(es) | ICAO/IATA Class | 3 |
| | ICAO / IATA Subrisk | Not Applicable |
| | ERG Code | 3L |
| Packing group | II | |
| Environmental hazard | Not Applicable | |
| Special precautions for user | Special provisions | A3 A72 A192 |
| | Cargo Only Packing Instructions | 364 |
| | Cargo Only Maximum Qty / Pack | 60 L |
| | Passenger and Cargo Packing Instructions | 353 |
| | Passenger and Cargo Maximum Qty / Pack | 5 L |
| | Passenger and Cargo Limited Quantity Packing Instructions | Y341 |
| | Passenger and Cargo Limited Maximum Qty / Pack | 1 L |

Sea transport (IMDG-Code / GGVSee)

| | | |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| UN number | 1263 | |
| UN proper shipping name | PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound) | |
| Transport hazard class(es) | IMDG Class | 3 |
| | IMDG Subrisk | Not Applicable |
| Packing group | II | |
| Environmental hazard | Not Applicable | |
| Special precautions for user | EMS Number | F-E , S-E |
| | Special provisions | 163 367 |
| | Limited Quantities | 5 L |

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name | Group |
|-------------------|---------------|
| cyclohexane | Not Available |
| methylcyclohexane | Not Available |
| n-hexane | Not Available |
| toluene | Not Available |

Transport in bulk in accordance with the ICG Code

| Product name | Ship Type |
|-------------------|---------------|
| cyclohexane | Not Available |
| methylcyclohexane | Not Available |
| n-hexane | Not Available |
| toluene | Not Available |

SECTION 15 Regulatory information

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

This substance is to be managed using the conditions specified in an applicable Group Standard

| HSR Number | Group Standard |
|------------|------------------------------------------|
| HSR002650 | Solvents (Flammable) Group Standard 2017 |

cyclohexane is found on the following regulatory lists

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

methylcyclohexane is found on the following regulatory lists

RESENE THINNER No. 5

New Zealand Approved Hazardous Substances with controls
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

n-hexane is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
New Zealand Approved Hazardous Substances with controls
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

toluene is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
New Zealand Approved Hazardous Substances with controls
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class | Quantity (Closed Containers) | Quantity (Open Containers) |
|--------------|---------------------------------------------|----------------------------|
| 3.1B | 100 L in containers more than 5 L | 50 L |
| 3.1B | 250 L in containers up to and including 5 L | 50 L |

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Class of substance | Quantities |
|--------------------|----------------|
| Not Applicable | Not Applicable |

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class | Gas (aggregate water capacity in mL) | Liquid (L) | Solid (kg) | Maximum quantity per package for each classification |
|--------------|--------------------------------------|------------|------------|------------------------------------------------------|
| 3.1B | | | | 1 L |

Tracking Requirements

Not Applicable

National Inventory Status

| National Inventory | Status |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Australia - AIIIC / Australia Non-Industrial Use | Yes |
| New Zealand - NZIoC | Yes |
| Legend: | Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets) |

SECTION 16 Other information

| | |
|----------------------|------------|
| Revision Date | 23/03/2021 |
| Initial Date | 23/01/2014 |

SDS Version Summary

| Version | Issue Date | Sections Updated |
|-----------|------------|------------------|
| 0.2.1.1.1 | 23/03/2021 | Classification |

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor

Continued...

RESENE THINNER No. 5

NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index

Powered by AuthorITe, from Chemwatch.