

RESENE ENGINE DEGREASER

RESENE AUTOMOTIVE & LIGHT INDUSTRIAL

Version No: 2.5.7.9
Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Issue Date: 17/08/2021
Print Date: 17/08/2021
L.GHS.NZL.EN

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

Product Identifier

| | |
|-------------------------------|--|
| Product name | RESENE ENGINE DEGREASER |
| 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 | 10876 |
|--------------------------|-------|

Details of the supplier of the safety data sheet

| | |
|-------------------------|--|
| Registered company name | RESENE AUTOMOTIVE & LIGHT INDUSTRIAL |
| Address | 32-50 Vogel Street Naenae Wellington 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 7 days) | CHEMWATCH EMERGENCY RESPONSE |
| Emergency telephone numbers | 0800 764766 | +61 2 9186 1132 |
| Other emergency telephone numbers | 0800 737636 | +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] | Flammable Liquids Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 2, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2 |
| 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 | 3.1C, 6.3A, 6.4A, 9.1B |

Label elements

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

Hazard statement(s)

| | |
|------|--|
| H226 | Flammable liquid and vapour. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |

Precautionary statement(s) Prevention

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| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
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|------|---|
| P233 | Keep container tightly closed. |
| 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. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves, protective clothing, eye protection and face protection. |
| P264 | Wash all exposed external body areas thoroughly after handling. |

Precautionary statement(s) Response

| | |
|----------------|--|
| 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. |
| P391 | Collect spillage. |
| 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]. |
| 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

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

Precautionary statement(s) Disposal

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| 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, EPA consolidation 30 April 2021 to be identified:

Mixtures

| CAS No | %[weight] | Name |
|----------------|---|--|
| 64742-82-1. | 10-20 | <u>naphtha petroleum heavy hydrodesulfurised</u> |
| 9016-45-9 | 1-10 | <u>nonylphenol ethoxylated</u> |
| 68412-54-4 | 1-10 | <u>nonylphenol ethoxylate, branched</u> |
| 8008-20-6 | 60-80 | <u>kerosene</u> |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available | |

SECTION 4 First aid measures

Description of first aid measures

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| 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 if pain persists or recurs. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| 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 | <ul style="list-style-type: none"> ▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▶ Other measures are usually unnecessary. |
| Ingestion | <ul style="list-style-type: none"> ▶ 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.

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SECTION 5 Firefighting measures

Extinguishing media

- ▶ Foam.

Special hazards arising from the substrate or mixture

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| Fire Incompatibility | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|--|

Advice for firefighters

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|------------------------------|--|
| Fire Fighting | ▶ Alert Fire Brigade and tell them location and nature of hazard. |
| Fire/Explosion Hazard | ▶ Liquid and vapour are flammable. Combustion products include: carbon monoxide (CO) carbon dioxide (CO ₂) other pyrolysis products typical of burning organic material. |

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

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|---------------------|--|
| Minor Spills | ▶ Remove all ignition sources. Contain spill with inert non- combustible absorbent then place in suitable container for disposal. Clean area with large quantity of water to complete clean- up. |
| Major Spills | 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. |

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

SECTION 7 Handling and storage

Precautions for safe handling

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|--------------------------|---|
| Safe handling | Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. <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 | ▶ Store in original containers in approved flammable liquid storage area. |

Conditions for safe storage, including any incompatibilities

| | |
|--------------------------------|--|
| Suitable container | ▶ Packing as supplied by manufacturer. |
| Storage incompatibility | ▶ may ignite in contact with strong oxidisers ▶ attack some plastics, rubber and coatings ▶ may generate electrostatic charges on flow or agitation due to low conductivity. |

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) | naphtha petroleum, heavy, hydrodesulfurised | White spirits (Stoddard solvent) | 100 ppm / 525 mg/m ³ | Not Available | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | kerosene | Oil mist, mineral | 5 mg/m ³ | 10 mg/m ³ | Not Available | om-Sampled by a method that does not collect vapour. |

Emergency Limits

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| Ingredient | TEEL-1 | TEEL-2 | TEEL-3 |
|---|---------------|---------------|---------------|
| naphtha petroleum, heavy, hydrodesulfurised | 300 mg/m3 | 1,800 mg/m3 | 29500** mg/m3 |
| nonylphenol, ethoxylated | 4.5 mg/m3 | 49 mg/m3 | 300 mg/m3 |
| nonylphenol, ethoxylated | 43 mg/m3 | 470 mg/m3 | 5,400 mg/m3 |
| nonylphenol ethoxylate, branched | 30 mg/m3 | 330 mg/m3 | 2,000 mg/m3 |
| kerosene | Not Available | Not Available | 4,800 mg/m3 |

| Ingredient | Original IDLH | Revised IDLH |
|---|---------------|---------------|
| naphtha petroleum, heavy, hydrodesulfurised | 20,000 mg/m3 | Not Available |
| nonylphenol, ethoxylated | Not Available | Not Available |
| nonylphenol ethoxylate, branched | Not Available | Not Available |
| kerosene | 2,500 mg/m3 | Not Available |

Occupational Exposure Banding

| Ingredient | Occupational Exposure Band Rating | Occupational Exposure Band Limit |
|----------------------------------|-----------------------------------|----------------------------------|
| nonylphenol, ethoxylated | E | ≤ 0.1 ppm |
| nonylphenol ethoxylate, branched | E | ≤ 0.1 ppm |

Notes: Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

MATERIAL DATA

For white spirit:

Low and high odour thresholds of 5.25 and 157.5 mg/m3, respectively, were considered to provide a rather useful index of odour as a warning property.

For trimethyl benzene as mixed isomers (of unstated proportions)

Odour Threshold Value: 2.4 ppm (detection)

Use care in interpreting effects as a single isomer or other isomer mix.

Exposed individuals are **NOT** reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

for kerosene CAS 8008-20-6

TLV TWA: 100 mg/m3 as total hydrocarbon vapour Skin A3

OEL TWA: 14 ppm, 100 mg/m3 [NIOSH, 1985]

REL TWA: 150 ppm [Shell]

CEL TWA: 300 ppm, 900 mg/m3

(CEL = Chemwatch Exposure Limit)

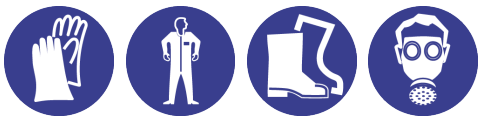
for petroleum distillates:

CEL TWA: 500 ppm, 2000 mg/m3 (compare OSHA TWA)

(CEL = Chemwatch Exposure Limit)

NOTE P: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 0.01% w/w benzene (EINECS No 200-753-7).

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 | ▶ 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 | See Other protection below |
| Other protection | ▶ Overalls. ▶ Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. |

Respiratory protection

Respiratory protection required in insufficiently ventilated working areas. An approved respirator with a replaceable vapour/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to AS/NZS 1715 Standard, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716 Standard, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Type A Filter of sufficient capacity.

SECTION 9 Physical and chemical properties

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Information on basic physical and chemical properties

| | | | |
|---|----------------|--|---------------|
| Appearance | Clear solution | | |
| Physical state | Liquid | Relative density (Water = 1) | 0.82 |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Available |
| 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) | 155-160 | Molecular weight (g/mol) | Not Available |
| Flash point (°C) | 40 | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Flammable. | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol) | 88 |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available |
| Solubility in water | Immiscible | pH as a solution (%) | Not Available |
| Vapour density (Air = 1) | Not Available | VOC g/L | 717 |

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

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|---------------------|--|
| Inhaled | <p>The acute toxicity of inhaled alkylbenzenes is best described by central nervous system depression. Inhalation of vapours may cause drowsiness and dizziness.</p> <p>High inhaled concentrations of mixed hydrocarbons may produce narcosis characterised by nausea, vomiting and lightheadedness. 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.</p> <p>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</p> <p>Exposure to white spirit, in a controlled inhalation study using volunteers either at rest or during exercise, (1000 or 2500 mg/m³ for 30 minutes) produced a linear relationship between alveolar and arterial concentrations of the individual solvent components.</p> |
| Ingestion | <p>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.</p> <p>Nonionic surfactants may produce localised irritation of the oral or gastrointestinal mucosa and induce vomiting and mild diarrhoea.</p> <p>Ingestion of petroleum hydrocarbons may produce irritation of the pharynx, oesophagus, stomach and small intestine with oedema and mucosal ulceration resulting; symptoms include a burning sensation in the mouth and throat.</p> <p>Considered an unlikely route of entry in commercial/industrial environments.</p> |
| Skin Contact | <p>The material may accentuate any pre-existing dermatitis condition</p> <p>One of the mechanisms of skin irritation caused by surfactants is considered to be denaturation of the proteins of skin.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects.</p> <p>The liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis.</p> <p>The material produces severe skin irritation; evidence exists, or practical experience predicts, that the material either:</p> <ul style="list-style-type: none"> ▶ produces severe inflammation of the skin in a substantial number of individuals following direct contact, and/or ▶ produces significant and severe inflammation when applied to the healthy intact skin of animals (for up to four hours), such inflammation |

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| | <p>being present twenty-four hours or more after the end of the exposure period.</p> <p>Aromatic hydrocarbons may produce skin irritation, vasodilation with erythema and changes in endothelial cell permeability.</p> |
| Eye | <p>Evidence exists, or practical experience predicts, that the material may cause 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.</p> <p>Some nonionic surfactants may produce a localised anaesthetic effect on the cornea; this may effectively eliminate the warning discomfort produced by other substances and lead to corneal injury.</p> <p>Petroleum hydrocarbons may produce pain after direct contact with the eyes.</p> <p>The vapour when concentrated has pronounced eye irritation effects and this gives some warning of high vapour concentrations.</p> |
| Chronic | <p>Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems.</p> <p>Repeated or prolonged exposure to mixed hydrocarbons may produce narcosis with dizziness, weakness, irritability, concentration and/or memory loss, tremor in the fingers and tongue, vertigo, olfactory disorders, constriction of visual field, paraesthesias of the extremities, weight loss and anaemia and degenerative changes in the liver and kidney.</p> <p>Follicular dermatitis may develop rapidly on repeated immersion of the hands and forearms in white spirits.</p> <p>Prolonged or repeated skin contact may cause degreasing with drying, cracking and dermatitis following.</p> <p>On the basis, primarily, of animal experiments, concern has been expressed 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.</p> <p>Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.</p> <p>Prolonged or repeated contact with xylenes may cause defatting dermatitis with drying and cracking.</p> |

| RESENE ENGINE DEGREASER | <table border="1"> <thead> <tr> <th>TOXICITY</th> <th>IRRITATION</th> </tr> </thead> <tbody> <tr> <td>Not Available</td> <td>Not Available</td> </tr> </tbody> </table> | TOXICITY | IRRITATION | Not Available | Not Available | | | | | | | | |
|--|--|----------|------------|---|---|---|---|--|--|--|--|--|---|
| TOXICITY | IRRITATION | | | | | | | | | | | | |
| Not Available | Not Available | | | | | | | | | | | | |
| naphtha petroleum, heavy, hydrodesulfurised | <table border="1"> <thead> <tr> <th>TOXICITY</th> <th>IRRITATION</th> </tr> </thead> <tbody> <tr> <td>Dermal (rabbit) LD50: >1900 mg/kg^[1]</td> <td>Eye: no adverse effect observed (not irritating)^[1]</td> </tr> <tr> <td>Inhalation(Rat) LC50; >1.58 mg/l4h^[1]</td> <td>Skin: adverse effect observed (irritating)^[1]</td> </tr> <tr> <td>Oral(Rat) LD50; >4500 mg/kg^[1]</td> <td>Skin: no adverse effect observed (not irritating)^[1]</td> </tr> </tbody> </table> | TOXICITY | IRRITATION | Dermal (rabbit) LD50: >1900 mg/kg ^[1] | Eye: no adverse effect observed (not irritating) ^[1] | Inhalation(Rat) LC50; >1.58 mg/l4h ^[1] | Skin: adverse effect observed (irritating) ^[1] | Oral(Rat) LD50; >4500 mg/kg ^[1] | Skin: no adverse effect observed (not irritating) ^[1] | | | | |
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| TOXICITY | IRRITATION | | | | | | | | | | | | |
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| Oral(Rat) LD50; 1310 mg/kg ^[2] | Eye: adverse effect observed (irritating) ^[1] | | | | | | | | | | | | |
| | Skin (human): 15 mg/3D mild | | | | | | | | | | | | |
| | Skin (rabbit): 500 mg mild | | | | | | | | | | | | |
| | Skin: adverse effect observed (irritating) ^[1] | | | | | | | | | | | | |
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| TOXICITY | IRRITATION | | | | | | | | | | | | |
| Dermal (rabbit) LD50: >2000 mg/kg ^[1] | Eye : Severe | | | | | | | | | | | | |
| Oral(Rat) LD50; >2000 mg/kg ^[1] | Eye: no adverse effect observed (not irritating) ^[1] | | | | | | | | | | | | |
| | Skin : Severe | | | | | | | | | | | | |
| | Skin: no adverse effect observed (not irritating) ^[1] | | | | | | | | | | | | |
| kerosene | <table border="1"> <thead> <tr> <th>TOXICITY</th> <th>IRRITATION</th> </tr> </thead> <tbody> <tr> <td>Dermal (rabbit) LD50: >2000 mg/kg^[2]</td> <td>Eye: no adverse effect observed (not irritating)^[1]</td> </tr> <tr> <td>Inhalation(Rat) LC50; >4.3 mg/l4h^[1]</td> <td>Skin (rabbit): 500 mg SEVERE</td> </tr> <tr> <td>Oral(Rat) LD50; >5000 mg/kg^[2]</td> <td>Skin: adverse effect observed (irritating)^[1]</td> </tr> </tbody> </table> | TOXICITY | IRRITATION | Dermal (rabbit) LD50: >2000 mg/kg ^[2] | Eye: no adverse effect observed (not irritating) ^[1] | Inhalation(Rat) LC50; >4.3 mg/l4h ^[1] | Skin (rabbit): 500 mg SEVERE | Oral(Rat) LD50; >5000 mg/kg ^[2] | Skin: adverse effect observed (irritating) ^[1] | | | | |
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| Oral(Rat) LD50; >5000 mg/kg ^[2] | Skin: adverse effect observed (irritating) ^[1] | | | | | | | | | | | | |
| Legend: | <p>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</p> | | | | | | | | | | | | |

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| RESENE ENGINE DEGREASER | Data demonstrate that during inhalation exposure,aromatic hydrocarbons undergo substantial partitioning into adipose tissues. |
| NAPHTHA PETROLEUM, HEAVY, HYDRODESULFURISED | <p>No significant acute toxicological data identified in literature search.</p> <p>For C9 aromatics (typically trimethylbenzenes - TMBs)</p> <p>Acute Toxicity</p> <p>Acute toxicity studies (oral, dermal and inhalation routes of exposure) have been conducted in rats using various solvent products containing predominantly mixed C9 aromatic hydrocarbons (CAS RN 64742-95-6).</p> |
| NONYLPHENOL, ETHOXYLATED | <p>The material may produce severe irritation to the eye causing pronounced inflammation.</p> <p>The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic).</p> |
| KEROSENE | The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (nonallergic). |
| RESENE ENGINE DEGREASER & NAPHTHA PETROLEUM, HEAVY, | <p>Studies indicate that normal, branched and cyclic paraffins are absorbed from the mammalian gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length,with little absorption above C30.</p> <p>for petroleum:</p> |

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| | |
|--|--|
| HYDRODESULFURISED & KEROSENE | Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffer's Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline This product may contain benzene which is known to cause acute myeloid leukaemia and n-hexane which has been shown to metabolize to compounds which are neuropathic. This product contains toluene. |
| RESENE ENGINE DEGREASER & NAPHTHA PETROLEUM, HEAVY, HYDRODESULFURISED | For trimethylbenzenes: Absorption of 1,2,4-trimethylbenzene occurs after oral, inhalation, or dermal exposure. |
| RESENE ENGINE DEGREASER & KEROSENE | For 'kerosenes' Acute toxicity: Oral LD50s for three kerosenes (Jet A, CAS No. 8008-20-6 and CAS No. 64742-81-0) ranged from > 2 to >20 g/kg The dermal LD50s of the same three kerosenes were all >2.0 g/kg. |
| NONYLPHENOL, ETHOXYLATED & NONYLPHENOL ETHOXYLATE, BRANCHED | For nonylphenol and its compounds: Alkylphenols like nonylphenol and bisphenol A have estrogenic effects in the body. Polyethers, for example, ethoxylated surfactants and polyethylene glycols, are highly susceptible towards air oxidation as the ether oxygens will stabilize intermediary radicals involved. Human beings have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents, and other cleaning products . Alcohol ethoxylates are according to CESIO (2000) classified as Irritant or Harmful depending on the number of EO-units: EO < 5 gives Irritant (Xi) with R38 (Irritating to skin) and R41 (Risk of serious damage to eyes) EO > 5-15 gives Harmful (Xn) with R22 (Harmful if swallowed) - R38/41 EO > 15-20 gives Harmful (Xn) with R22-41 >20 EO is not classified (CESIO 2000) Oxo-AE, C13 EO10 and C13 EO15, are Irritating (Xi) with R36/38 (Irritating to eyes and skin) . AE are not included in Annex 1 of the list of dangerous substances of the Council Directive 67/548/EEC In general, alcohol ethoxylates (AE) are readily absorbed through the skin of guinea pigs and rats and through the gastrointestinal mucosa of rats. For high boiling ethylene glycol ethers (typically triethylene- and tetraethylene glycol ethers): Skin absorption: Available skin absorption data for triethylene glycol ether (TGBE), triethylene glycol methyl ether (TGME), and triethylene glycol ethylene ether (TGEE) suggest that the rate of absorption in skin of these three glycol ethers is 22 to 34 micrograms/cm ² /hr, with the methyl ether having the highest permeation constant and the butyl ether having the lowest. for nonylphenol: Nonylphenol was studied for oral toxicity in rats in a 28-day repeat dose toxicity test at doses of 0, 4, 15, 60 and 250 mg/kg/day. |

| | | | |
|--|---|---------------------------------|---|
| 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

| RESENE ENGINE DEGREASER | Endpoint | Test Duration (hr) | Species | Value | Source |
|-------------------------|----------|--------------------|---------------|---------------|---------------|
| | | Not Available | Not Available | Not Available | Not Available |

| naphtha petroleum, heavy, hydrodesulfurised | Endpoint | Test Duration (hr) | Species | Value | Source |
|---|-----------|--------------------|-------------------------------|-----------|--------|
| | EC50 | 72h | Algae or other aquatic plants | 391mg/l | 2 |
| | EC50(ECx) | 72h | Algae or other aquatic plants | 391mg/l | 2 |
| | NOEC(ECx) | 504h | Crustacea | 0.097mg/l | 2 |
| | EC50 | 72h | Algae or other aquatic plants | 0.53mg/l | 2 |
| | EC50 | 96h | Algae or other aquatic plants | 0.58mg/l | 2 |
| | NOEC(ECx) | 720h | Crustacea | 0.024mg/l | 2 |
| | LC50 | 96h | Fish | 0.14mg/l | 2 |
| | EC50 | 96h | Algae or other aquatic plants | 0.277mg/l | 2 |

| nonylphenol, ethoxylated | Endpoint | Test Duration (hr) | Species | Value | Source |
|--------------------------|-----------|--------------------|-------------------------------|---------------|--------|
| | BCF | 1008h | Fish | <0.2 | 7 |
| | EC50(ECx) | 120h | Crustacea | 0.08-0.29mg/l | 4 |
| | EC50 | 96h | Algae or other aquatic plants | 12mg/l | 4 |
| EC50 | 48h | Crustacea | 13-16mg/l | 4 | |

| nonylphenol ethoxylate, branched | Endpoint | Test Duration (hr) | Species | Value | Source |
|----------------------------------|-----------|-------------------------------|---------|-----------|--------|
| | NOEC(ECx) | 2184h | Fish | 0.006mg/l | 2 |
| EC50 | 72h | Algae or other aquatic plants | >3mg/l | 2 | |

Continued...

RESENE ENGINE DEGREASER

| | | | | | |
|----------------|---|--------------------|---------------|---------------|---------------|
| | LC50 | 96h | Fish | 0.136mg/l | 2 |
| kerosene | Endpoint | Test Duration (hr) | Species | Value | Source |
| | Not Available | Not Available | Not Available | Not Available | Not Available |
| 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 | | | | |

Toxic 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 kerosene:

For kerosene-range refinery streams ('kerosene'):

Kerosene is the name for the lighter end of a group of petroleum streams known as the middle distillates.

Surfactants are in general toxic to aquatic organisms due to their surface-active properties.

For 1,2,4-trimethylbenzene:

Half-life (hr) air : 0.48-16

Half-life (hr) H2O surface water : 0.24-672

Half-life (hr) H2O ground : 336-1344

Half-life (hr) soil : 168-672

Henry's Pa m3 /mol: 385-627

Bioaccumulation : not significant

1,2,4-Trimethylbenzene is a volatile organic compound (VOC) substance.

For aromatic hydrocarbons:

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

For petroleum distillates:

Environmental fate:

When petroleum substances are released into the environment, four major fate processes will take place: dissolution in water, volatilization, biodegradation and adsorption.

For C9 aromatics (typically trimethylbenzene - TMBs)

Chemicals in this category possess properties indicating a hazard for the environment (acute toxicity for fish, invertebrates, and algae from 1 to 10 mg/L).

Environmental toxicity is a function of the n-octanol/ water partition coefficient (log Pow, log Kow).

For xylenes :

log Koc : 2.05-3.08

Koc : 25.4-204

Half-life (hr) air : 0.24-42

Half-life (hr) H2O surface water : 24-672

Half-life (hr) H2O ground : 336-8640

Half-life (hr) soil : 52-672

Henry's Pa m3 /mol: 637-879

Henry's atm m3 /mol: 7.68E-03

BOD 5 if unstated: 1.4,1%

COD : 2.56,13%

ThOD : 3.125

BCF : 23

log BCF : 1.17-2.41

Environmental Fate

Terrestrial fate: Measured Koc values of 166 and 182, indicate that 3-xylene is expected to have moderate mobility in soil.

For surfactants:

Environmental fate:

Octanol/water partition coefficients cannot easily be determined for surfactants because one part of the molecule is hydrophilic and the other part is hydrophobic.

for alkylphenols and their ethoxylates, or propoxylates:

Environmental fate: Alkylphenols are ubiquitous in the environment after the introduction, generally as wastes, of their alkoxylated forms (ethoxylates and propoxylates, for example); these are extensively used throughout industry and in the home.

DO NOT discharge into sewer or waterways.

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|--------------------------|-------------------------|------------------|
| nonylphenol, ethoxylated | LOW | LOW |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|--------------------------|-----------------|
| nonylphenol, ethoxylated | LOW (BCF = 16) |

Mobility in soil

| Ingredient | Mobility |
|--------------------------|-----------------|
| nonylphenol, ethoxylated | LOW (KOC = 940) |

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. <p>Consult manufacturer for recycling option.</p> <p>Resene Paintwise accepts residual unwanted paint and packaging. See Resene website for Paintwise information. Or contact a Local Authority for the disposal information. Do not discharge the substance into the environment.</p> |
|-------------------------------------|---|

Continued...

RESENE ENGINE DEGREASER

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.

Do not allow product or wash water from cleaning or process equipment to enter drains or watercourses. It may be necessary to collect all wash water for treatment before disposal.

The generation of waste should be avoided or minimised wherever possible.

Disposal of this product should comply with Hazard Substances (Disposal) Notice 2017 (EPA Consolidation 30 April 2021) and local regulations.



Flammable substance can be disposed of if the substance is treated by using a method that changes the characteristics or composition of the substance so that the substance is no longer a hazardous substance, or exporting the substance from New Zealand as waste.

For treating and discharging processes contact your local authority.

The treating may include burning the substance if the burning is managed to ensure that no person, or place where a person may legally be present.

The substance may be discharged into the environment as waste or disposed into a landfill if the substance will not come into contact with oxidising substances and where is no ignition source which is capable to ignite the substance.

SECTION 14 Transport information**Labels Required**

| | |
|------------------|---|
| |  |
| Marine Pollutant |  |
| HAZCHEM | *3Y |

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) | Class 3 Subrisk Not Applicable |
| Packing group | III |
| Environmental hazard | Environmentally hazardous |
| Special precautions for user | Special provisions 163; 223; 367 Limited quantity 5 L |

Air transport (ICAO-IATA / DGR)

| | |
|------------------------------|--|
| UN number | 1263 |
| 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 | III |
| Environmental hazard | Environmentally hazardous |
| Special precautions for user | Special provisions A3 A72 A192 Cargo Only Packing Instructions 366 Cargo Only Maximum Qty / Pack 220 L Passenger and Cargo Packing Instructions 355 Passenger and Cargo Maximum Qty / Pack 60 L Passenger and Cargo Limited Quantity Packing Instructions Y344 Passenger and Cargo Limited Maximum Qty / Pack 10 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) |

RESENE ENGINE DEGREASER

| | | |
|-------------------------------------|--------------------|-----------------|
| Transport hazard class(es) | IMDG Class | 3 |
| | IMDG Subrisk | Not Applicable |
| Packing group | III | |
| Environmental hazard | Marine Pollutant | |
| Special precautions for user | EMS Number | F-E , S-E |
| | Special provisions | 163 223 367 955 |
| | 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 |
|---|---------------|
| naphtha petroleum, heavy, hydrodesulfurised | Not Available |
| nonylphenol, ethoxylated | Not Available |
| nonylphenol ethoxylate, branched | Not Available |
| kerosene | Not Available |

Transport in bulk in accordance with the ICG Code

| Product name | Ship Type |
|---|---------------|
| naphtha petroleum, heavy, hydrodesulfurised | Not Available |
| nonylphenol, ethoxylated | Not Available |
| nonylphenol ethoxylate, branched | Not Available |
| kerosene | 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 |
|------------|---|
| HSR002662 | Surface Coatings and Colourants Flammable Group Standard 2020 |

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

naphtha petroleum, heavy, hydrodesulfurised 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 Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

nonylphenol, ethoxylated 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)

nonylphenol ethoxylate, branched 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)

kerosene 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

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans

New Zealand Approved Hazardous Substances with controls

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

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) |
|--------------|---|----------------------------|
| 3.1C | 500 L in containers more than 5 L | 250 L |
| 3.1C | 1 500 L in containers up to and including 5 L | 250 L |

Continued...

RESENE ENGINE DEGREASER

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 |
|--------------|--------------------------------------|------------|------------|--|
| 3.1C or 3.1D | | | | 10 L |

Tracking Requirements

Not Applicable

National Inventory Status

| National Inventory | Status |
|---|---|
| Australia - AIIC / 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. These ingredients may be exempt or will require registration. |

SECTION 16 Other information

| | |
|----------------------|------------|
| Revision Date | 17/08/2021 |
| Initial Date | 04/03/2019 |

SDS Version Summary

| Version | Date of Update | Sections Updated |
|---------|----------------|---|
| 1.5.7.9 | 17/08/2021 | Acute Health (inhaled), Chronic Health, Classification, First Aid (inhaled) |

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
 ES: Exposure Standard
 OSF: Odour Safety Factor
 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
 AIIC: Australian Inventory of Industrial Chemicals
 DSL: Domestic Substances List
 NDSL: Non-Domestic Substances List
 IECSC: Inventory of Existing Chemical Substance in China
 EINECS: European Inventory of Existing Commercial chemical Substances
 ELINCS: European List of Notified Chemical Substances
 NLP: No-Longer Polymers
 ENCS: Existing and New Chemical Substances Inventory
 KECI: Korea Existing Chemicals Inventory
 NZIoC: New Zealand Inventory of Chemicals
 PICCS: Philippine Inventory of Chemicals and Chemical Substances
 TSCA: Toxic Substances Control Act
 TCSI: Taiwan Chemical Substance Inventory
 INSQ: Inventario Nacional de Sustancias Químicas
 NCI: National Chemical Inventory
 FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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