

# RESENE BRUSH CLEANER LOW ODOUR

Resene Paints Ltd

Version No: 1.2  
Safety Data Sheet according to HSNO Regulations

Chemwatch Hazard Alert Code: 2

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L.GHS.NZL.EN

## SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

### Product Identifier

Product name	RESENE BRUSH CLEANER LOW ODOUR
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	6887
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### Details of the supplier of the safety data sheet

Registered company name	Resene Paints Ltd
Address	32-50 Vogel Street Naenae 5011 Wellington New Zealand
Telephone	+64 4 577 0500
Fax	+64 4 577 3327
Website	www.resene.co.nz
Email	advice@resene.co.nz

### Emergency telephone number

Association / Organisation	NZ POISONS (24hr 7 days)
Emergency telephone numbers	0800 764 766
Other emergency telephone numbers	Not Available

### CHEMWATCH EMERGENCY RESPONSE

Primary Number	Alternative Number 1	Alternative Number 2
+800 2436 2255	+612 9186 1132	Not Available

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

**Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Goods for transport purposes.**

GHS Classification [1]	Skin Corrosion/Irritation Category 3, Eye Irritation Category 2A, Skin Sensitizer Category 1, Carcinogen Category 2, STOT - SE Category 1, Acute Aquatic Hazard Category 2, Chronic Aquatic Hazard Category 2, Flammable Liquid Category 3, Acute Toxicity (Oral) Category 4
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI
Determined by Chemwatch using GHS/HSNO criteria	9.1B, 6.5B (contact), 6.7B, 6.3B, 6.4A, 6.1D (oral), 6.9A, 9.1D, 3.1C

### Label elements

GHS label elements	
SIGNAL WORD	DANGER

### Hazard statement(s)

Continued...

## RESENE BRUSH CLEANER LOW ODOUR

H316	Causes mild skin irritation
H319	Causes serious eye irritation
H317	May cause an allergic skin reaction
H351	Suspected of causing cancer
H370	Causes damage to organs
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
H226	Flammable liquid and vapour
H302	Harmful if swallowed

## Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
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## Precautionary statement(s) Response

P307+P311	IF exposed: Call a POISON CENTER or doctor/physician.
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## Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.
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## Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
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## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

## Substances

See section below for composition of Mixtures

## Mixtures

CAS No	%[weight]	Name
100-51-6	10-20	<u>benzyl alcohol</u>
64742-82-1.	10-20	<u>naphtha, petroleum, hydrodesulfurised heavy</u>
64742-94-5	10-20	<u>solvent naphtha petroleum, heavy aromatic</u>
91-20-3	0.1-1	<u>naphthalene</u>
84133-50-6	1-10	<u>alcohols C12-14 secondary ethoxylated</u>

## SECTION 4 FIRST AID MEASURES

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

## Description of first aid measures

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with fresh running water.</li> <li>▶ 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.</li> <li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.</li> <li>▶ If <b>swallowed do NOT induce vomiting.</b></li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Seek medical advice.</li> <li>▶ Avoid giving milk or oils.</li> <li>▶ Avoid giving alcohol.</li> </ul>

## Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Clinical experience of benzyl alcohol poisoning is generally confined to premature neonates in receipt of preserved intravenous salines.

- ▶ Metabolic acidosis, bradycardia, skin breakdown, hypotonia, hepatorenal failure, hypotension and cardiovascular collapse are characteristic.
- ▶ High urine benzoate and hippuric acid as well as elevated serum benzoic acid levels are found.
- ▶ The so-called "gasping syndrome" describes the progressive neurological deterioration of poisoned neonates.
- ▶ Management is essentially supportive.

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For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- ▶ Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> 50 mm Hg) should be intubated.
- ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- ▶ Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

for naphthalene intoxication: Naphthalene requires hepatic and microsomal activation prior to the production of toxic effects. Liver microsomes catalyse the initial synthesis of the reactive 1,2-epoxide intermediate which is subsequently oxidised to naphthalene dihydrodiol and alpha-naphthol. The 2-naphthoquinones are thought to produce haemolysis, the 1,2-naphthoquinones are thought to be responsible for producing cataracts in rabbits, and the glutathione-adducts of naphthalene-1,2-oxide are probably responsible for pulmonary toxicity. Suggested treatment regime:

- ▶ Induce emesis and/or perform gastric lavage with large amounts of warm water where oral poisoning is suspected.
- ▶ Instill a saline cathartic such as magnesium or sodium sulfate in water (15 to 30g).
- ▶ Demulcents such as milk, egg white, gelatin, or other protein solutions may be useful after the stomach is emptied but oils should be avoided because they promote absorption.
- ▶ If eyes/skin contaminated, flush with warm water followed by the application of a bland ointment.
- ▶ Severe anaemia, due to haemolysis, may require small repeated blood transfusions, preferably with red cells from a non-sensitive individual.
- ▶ Where intravascular haemolysis, with haemoglobinuria occurs, protect the kidneys by promoting a brisk flow of dilute urine with, for example, an osmotic diuretic such as mannitol. It may be useful to alkalinise the urine with small amounts of sodium bicarbonate but many researchers doubt whether this prevents blockage of the renal tubules.
- ▶ Use supportive measures in the case of acute renal failure. GOSSELIN, SMITH HODGE: Clinical Toxicology of Commercial Products, 5th Ed.

### SECTION 5 FIREFIGHTING MEASURES

#### Extinguishing media

- ▶ Foam.

#### Special hazards arising from the substrate or mixture

<b>Fire Incompatibility</b>	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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#### Advice for firefighters

<b>Fire Fighting</b>	▶ Alert Fire Brigade and tell them location and nature of hazard.
<b>Fire/Explosion Hazard</b>	▶ Liquid and vapour are flammable. Combustion products include; carbon monoxide (CO) carbon dioxide (CO <sub>2</sub> ) aldehydes other pyrolysis products typical of burning organic material <b>WARNING:</b> Long standing in contact with air and light may result in the formation of potentially explosive peroxides.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

<b>Minor Spills</b>	▶ Remove all ignition sources.
<b>Major Spills</b>	Chemical Class: aliphatic hydrocarbons For release onto land: recommended sorbents listed in order of priority. ▶ Clear area of personnel and move upwind.

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

### SECTION 7 HANDLING AND STORAGE

#### Precautions for safe handling

<b>Safe handling</b>	▶ Containers, even those that have been emptied, may contain explosive vapours. The tendency of many ethers to form explosive peroxides is well documented. The substance accumulates peroxides which may become hazardous only if it evaporates or is distilled or otherwise treated to concentrate the peroxides. ▶ Electrostatic discharge may be generated during pumping - this may result in fire. ▶ Avoid all personal contact, including inhalation. ▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b>
<b>Other information</b>	▶ Store in original containers in approved flammable liquid storage area.

#### Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	▶ Packing as supplied by manufacturer. ▶ For low viscosity materials (l) : Drums and jerry cans must be of the non-removable head type.
<b>Storage incompatibility</b>	Benzyl alcohol: ▶ may froth in contact with water ▶ slowly oxidises in air, oxygen forming benzaldehyde ▶ is incompatible with mineral acids, caustics, aliphatic amines, isocyanates ▶ reacts violently with strong oxidisers, and explosively with sulfuric acid at elevated temperatures ▶ corrodes aluminium at high temperatures ▶ is incompatible with aluminum, iron, steel ▶ attacks some nonfluorinated plastics; may attack, extract and dissolve polypropylene Benzyl alcohol contaminated with 1.4% hydrogen bromide and 1.2% of dissolved iron(II) polymerises exothermically above 100 deg. For alkyl aromatics: The alkyl side chain of aromatic rings can undergo oxidation by several mechanisms. ▶ Glycol ethers may form peroxides under certain conditions; the potential for peroxide formation is enhanced when these substances are used in processes such as distillation where they are concentrated or even evaporated to near-dryness or dryness; storage under a nitrogen atmosphere is recommended to minimise the possible formation of highly reactive peroxides ▶ Nitrogen blanketing is recommended if transported in containers at temperatures within 15 deg C of the flash-point and at or above the flash-point - large

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- ▶ containers may first need to be purged and inerted with nitrogen prior to loading
- ▶ In the presence of strong bases or the salts of strong bases, at elevated temperatures, the potential exists for runaway reactions.
- ▶ Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic rings and strong oxidising agents.

## 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, hydrodesulfurised heavy	Rubber solvent (Naphtha)	1600 mg/m <sup>3</sup> / 400 ppm	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	naphtha, petroleum, hydrodesulfurised heavy	White spirits (Stoddard solvent)	525 mg/m <sup>3</sup> / 100 ppm	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	naphthalene	Naphthalene	52 mg/m <sup>3</sup> / 10 ppm	79 mg/m <sup>3</sup> / 15 ppm	Not Available	Not Available

## EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
benzyl alcohol	Benzyl alcohol	30 ppm	49 ppm	49 ppm
naphtha, petroleum, hydrodesulfurised heavy	Naphtha, hydrotreated heavy; (Isopar L-rev 2)	171 ppm	171 ppm	570 ppm
naphtha, petroleum, hydrodesulfurised heavy	Solvent naphtha, petroleum, medium aliphatic; (Mineral spirits, naphtha)	0.32 mg/m <sup>3</sup>	3.5 mg/m <sup>3</sup>	21 mg/m <sup>3</sup>
naphtha, petroleum, hydrodesulfurised heavy	Rubber solvent; (Naphtha (petroleum) light aliphatic)	264 ppm	1700 ppm	10000 ppm
naphtha, petroleum, hydrodesulfurised heavy	Petroleum distillates; (Petroleum crude oil)	87.5 ppm	450 ppm	10000 ppm
naphtha, petroleum, hydrodesulfurised heavy	Naphtha (coal tar); (Naphtha [petroleum] light aliphatic; Aliphatic naphtha)	300 ppm	1700 ppm	10000 ppm
naphtha, petroleum, hydrodesulfurised heavy	Petroleum spirits; (VM & P Naphtha, Ligroine, Paint solvent)	75 ppm	400 ppm	400 ppm
naphtha, petroleum, hydrodesulfurised heavy	Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene)	100 ppm	350 ppm	29500 ppm
naphthalene	Naphthalene	15 ppm	15 ppm	500 ppm

Ingredient	Original IDLH	Revised IDLH
benzyl alcohol	Not Available	Not Available
naphtha, petroleum, hydrodesulfurised heavy	29,500 mg/m <sup>3</sup> / 10,000 ppm / 10,000 [LEL] ppm	20,000 mg/m <sup>3</sup> / 1,100 [LEL] ppm / 1,000 [LEL] ppm
solvent naphtha petroleum, heavy aromatic	Not Available	Not Available
naphthalene	500 ppm	250 ppm
alcohols C12-14 secondary ethoxylated	Not Available	Not Available

## MATERIAL DATA

for naphthalene:

Odour Threshold Value: 0.038 ppm

The TLV-TWA is thought to be low enough to prevent ocular toxicity but the margin of safety associated with the TLV for hypersusceptible individuals (with glucose-6-phosphate dehydrogenase defective erythrocytes) to naphthalene-induced blood dyscrasias is unknown.

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 ethyl benzene:

Odour Threshold Value: 0.46-0.60 ppm

NOTE: Detector tubes for ethylbenzene, measuring in excess of 30 ppm, are commercially available.

NOTE M: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 0.005% w/w benzo[a]pyrene (EINECS No 200-028-5).

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

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<b>Hands/feet protection</b>	<ul style="list-style-type: none"> <li>Wear chemical protective gloves, e.g. PVC.</li> </ul> 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.
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>Overalls.</li> </ul> Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
<b>Thermal hazards</b>	Not Available

## Recommended material(s)

## GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

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Material	CPI
BUTYL	C
NEOPRENE	C
NITRILE	C
PVC	C
TEFLON	C
VITON	C

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## Respiratory protection

Type A-P Filter of sufficient capacity.

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 5 x ES	A-AUS / Class 1 P2	-	A-PAPR-AUS / Class 1 P2
up to 25 x ES	Air-line*	A-2 P2	A-PAPR-2 P2
up to 50 x ES	-	A-3 P2	-
50+ x ES	-	Air-line**	-

\* - Continuous-flow; \*\* - Continuous-flow or positive pressure demand

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

<b>Appearance</b>	Note that all of the monopropylene glycol ethers may exist in two isomeric forms, alpha or beta.   Note that all of the monopropylene glycol ethers may exist in two isomeric forms, alpha or beta.   Clear colourless liquid with strong solvent odour		
<b>Physical state</b>	Liquid	<b>Relative density (Water = 1)</b>	0.93
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	Not Available	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (cSt)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	143	<b>Molecular weight (g/mol)</b>	Not Available
<b>Flash point (°C)</b>	46	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Flammable.	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	70
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water (g/L)</b>	Immiscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	640

## SECTION 10 STABILITY AND REACTIVITY

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	<ul style="list-style-type: none"> <li>Presence of elevated temperatures.</li> <li>Unstable in the presence of incompatible materials.</li> </ul>
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7

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Incompatible materials	See section 7
Hazardous decomposition products	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

Inhaled	<p>The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). The acute toxicity of inhaled alkylbenzenes is best described by central nervous system depression.</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>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>A significant number of individuals exposed to mixed trimethylbenzenes complained of nervousness, tension, anxiety and asthmatic bronchitis.</p> <p>Inhalation of benzyl alcohol may affect respiration (paralysis of the respiratory center, respiratory depression, gasping respirations), cardiovascular system (hypotension)</p> <p>Inhalation of naphthalene vapour has been associated with headache, loss of appetite and nausea.</p> <p>Strong evidence exists that exposure to the material may produce very serious irreversible damage (other than carcinogenesis, mutagenesis and teratogenesis) following a single exposure by swallowing.</p>
Ingestion	<p>Strong evidence exists that exposure to the material may produce very serious irreversible damage (other than carcinogenesis, mutagenesis and teratogenesis) following a single exposure by swallowing.</p> <p>The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion".</p> <p>Ingestion of large doses of benzyl alcohol may cause abdominal pain, nausea, vomiting, diarrhea.</p> <p>Ingestion of naphthalene and its congeners may produce abdominal cramps with nausea, vomiting, diarrhoea, headache, profuse perspiration, listlessness, confusion, and in severe poisonings, coma with or without convulsions.</p> <p>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>
Skin Contact	<p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> <p>The material may produce mild skin irritation; limited evidence or practical experience suggests, that the material either:</p> <ul style="list-style-type: none"> <li>▶ produces mild inflammation of the skin in a substantial number of individuals following direct contact, and/or</li> <li>▶ produces significant, but mild, inflammation when applied to the healthy intact skin of animals (for up to four hours), such inflammation being present twenty-four hours or more after the end of the exposure period.</li> </ul> <p>Toxic effects may result from skin absorption</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. The material may accentuate any pre-existing dermatitis condition</p> <p>Workers sensitised to naphthalene and its congeners show exfoliative dermatitis.</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>
Eye	<p>Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals.</p> <p>Exposure to naphthalene and its congeners has produced cataracts in animals and workers.</p>
Chronic	<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>Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.</p> <p>Allergic reactions to benzoic acid have been reported.</p> <p>Repeated application of mildly hydrotreated oils (principally paraffinic), to mouse skin, induced skin tumours; no tumours were induced with severely hydrotreated oils.</p> <p>Prolonged or repeated exposure to benzyl alcohol may cause allergic contact dermatitis.</p> <p>In a two-year inhalation study, groups of mice were exposed at 0, 10 or 30 ppm naphthalene, 6 hours/day, 5 days/week for 103 weeks.</p> <p>Studies with some glycol ethers (principally the monoethylene glycols) and their esters indicate reproductive changes, testicular atrophy, infertility and kidney function changes.</p>

RESENE BRUSH CLEANER LOW ODOUR	TOXICITY	IRRITATION
	Not Available	Not Available
benzyl alcohol	TOXICITY	IRRITATION
	dermal (rat) LD50: 1000000 ppm/90M <sup>[2]</sup>	Eye (rabbit): 0.75 mg open SEVERE
	Inhalation (rat) LC50: >4.178 mg/L/4h <sup>[2]</sup>	Skin (man): 16 mg/48h-mild
Oral (rat) LD50: 1560 mg/kg <sup>[2]</sup>	Skin (rabbit):10 mg/24h open-mild	
naphtha, petroleum, hydrosulfurised heavy	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>	Not Available
	Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>	
Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>		

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	Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>	
	Dermal (rabbit) LD50: >3000 mg/kg <sup>[2]</sup>	
	dermal (rat) LD50: 28000 mg/kg*n <sup>[2]</sup>	
	Inhalation (rat) LC50: >1400 ppm/8H <sup>[2]</sup>	
	Inhalation (rat) LC50: 3400 ppm/4H <sup>[2]</sup>	
	Inhalation (rat) LC50: 61 mg/L/4H <sup>[2]</sup>	
	Oral (rat) LD50: >19650 mg/kgd <sup>[2]</sup>	
	Oral (rat) LD50: >4300 mg/kgd <sup>[2]</sup>	
	Oral (rat) LD50: >4500 mg/kg <sup>[1]</sup>	
	Oral (rat) LD50: >4500 mg/kg <sup>[1]</sup>	
	Oral (rat) LD50: >4500 mg/kg <sup>[1]</sup>	
	Oral (rat) LD50: >4500 mg/kg <sup>[1]</sup>	
	Oral (rat) LD50: >5000 mg/kg <sup>[2]</sup>	
solvent naphtha petroleum, heavy aromatic	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	[PETROFIN]
	Inhalation (rat) LC50: >0.59 mg/L/4H <sup>[2]</sup>	Eye (rabbit): Irritating
	Oral (rat) LD50: >2000 mg/kg <sup>[1]</sup>	
naphthalene	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2500 mg/kg <sup>[2]</sup>	Eye (rabbit): 100 mg - mild
	Oral (rat) LD50: 490 mg/kg <sup>[2]</sup>	Skin (rabbit):495 mg (open) - mild
alcohols C12-14 secondary ethoxylated	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Not Available
	Oral (rat) LD50: >=2000 mg/kg <sup>[1]</sup>	

**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

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 available but does not fill the criteria for classification  
 ✓ – Data required to make classification available  
 ⊖ – Data Not Available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
benzyl alcohol	LC50	96	Fish	10mg/L	4
benzyl alcohol	EC50	48	Crustacea	230mg/L	2
benzyl alcohol	EC50	72	Algae or other aquatic plants	500mg/L	2
benzyl alcohol	EC03	168	Algae or other aquatic plants	=16mg/L	4
benzyl alcohol	NOEC	336	Fish	5.1mg/L	2
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=13mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=3000mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	NOEC	72	Algae or other aquatic plants	=0.1mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	96	Algae or other aquatic plants	64mg/L	2

Continued...



## RESENE BRUSH CLEANER LOW ODOUR

naphtha, petroleum, hydrodesulfurised heavy	EC50	96	Algae or other aquatic plants	64mg/L	2
naphtha, petroleum, hydrodesulfurised heavy	EC50	48	Crustacea	>100mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	96	Algae or other aquatic plants	=450mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=6.5mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=6.5mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	NOEC	72	Algae or other aquatic plants	<0.1mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	LC50	96	Fish	0.00746mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	EC50	48	Crustacea	0.058mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	BCF	96	Fish	0.2mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	EC20	168	Crustacea	0.11mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	NOEC	168	Crustacea	<=0.05mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	LC50	96	Fish	8.8mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	EC50	48	Crustacea	3.7mg/L	4
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=6.5mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	96	Algae or other aquatic plants	64mg/L	2
naphtha, petroleum, hydrodesulfurised heavy	NOEC	72	Algae or other aquatic plants	<0.1mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=6.5mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	EC50	72	Algae or other aquatic plants	=6.5mg/L	1
naphtha, petroleum, hydrodesulfurised heavy	NOEC	72	Algae or other aquatic plants	<0.1mg/L	1
solvent naphtha petroleum, heavy aromatic	LC50	96	Fish	0.58mg/L	2
solvent naphtha petroleum, heavy aromatic	EC50	48	Crustacea	0.76mg/L	2
solvent naphtha petroleum, heavy aromatic	EC50	72	Algae or other aquatic plants	<1mg/L	1
solvent naphtha petroleum, heavy aromatic	EC50	48	Crustacea	=0.95mg/L	1
solvent naphtha petroleum, heavy aromatic	NOEC	96	Algae or other aquatic plants	0.12mg/L	2
naphthalene	LC50	96	Fish	0.213mg/L	4
naphthalene	EC50	48	Crustacea	0.004729473mg/L	4
naphthalene	EC50	72	Algae or other aquatic plants	ca.0.4- ca.0.5mg/L	2
naphthalene	BCF	12	Fish	10.2mg/L	4
naphthalene	EC50	0.05	Crustacea	0.00000085mg/L	4
naphthalene	NOEC	48	Fish	0.012817mg/L	4

**Legend:**

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - 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 propylene glycol ethers:

**Environmental fate:**

Most are liquids at room temperature and all are water-soluble.

For 1,2,4-trimethylbenzene:

Half-life (hr) air : 0.48-16

Half-life (hr) H<sub>2</sub>O surface water : 0.24-672

Half-life (hr) H<sub>2</sub>O ground : 336-1344

Half-life (hr) soil : 168-672

Henry's Pa m<sup>3</sup>/mol: 385-627

Bioaccumulation : not significant

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

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

Continued...



## RESENE BRUSH CLEANER LOW ODOUR

For glycol ethers:

**Environmental fate:**

Ether groups are generally stable to hydrolysis in water under neutral conditions and ambient temperatures.

For benzyl alkyl alcohols:

All of the cluster members are liquids under standard temperature and pressure conditions.

For benzoates:

The ultimate environmental characteristics for benzoates may be determined by the properties of counter-ions.

for naphthalene:

Environmental fate:

Naphthalene released to the atmosphere may be transported to surface water and/or soil by wet or dry deposition.

For benzyl alcohol:

log Kow : 1.1

Koc : <5

Henry's atm m<sup>3</sup>/mol: 3.91E-07

BOD 5: 1.55-1.6,33-62%

COD : 96%

ThOD : 2.519

BCF : 4

Bioaccumulation : not significant

Anaerobic effects : significant degradation

Effects on algae and plankton: inhibits degradation of glucose

Degradation Biological: significant

processes Abiotic: RxnOH\*, no photochem

**Ecotoxicity**

Fish LC50 (48 h): fathead minnow 770 mg/l; (72 h): 480 mg/l; (96 h) 460 mg/l

Fish LC50 (96 h) fathead minnow 10 ppm, bluegill sunfish 15 ppm; tidewater silverside fish 15 ppm

Products of Biodegradation: Possibly hazardous short term degradation products are not likely.

**DO NOT discharge into sewer or waterways.**

**Persistence and degradability**

Ingredient	Persistence: Water/Soil	Persistence: Air
benzyl alcohol	LOW	LOW
naphthalene	HIGH (Half-life = 258 days)	LOW (Half-life = 1.23 days)

**Bioaccumulative potential**

Ingredient	Bioaccumulation
benzyl alcohol	LOW (LogKOW = 1.1)
solvent naphtha petroleum, heavy aromatic	LOW (BCF = 159)
naphthalene	HIGH (BCF = 18000)

**Mobility in soil**



Ingredient	Mobility
benzyl alcohol	LOW (KOC = 15.66)
naphthalene	LOW (KOC = 1837)

**SECTION 13 DISPOSAL CONSIDERATIONS****Waste treatment methods**

<b>Product / Packaging disposal</b>	<ul style="list-style-type: none"> <li>▶ Containers may still present a chemical hazard/ danger when empty.</li> <li>Legislation addressing waste disposal requirements may differ by country, state and/ or territory.</li> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ Recycle wherever possible.</li> </ul>
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Ensure that the disposal of material is carried out in accordance with Hazardous Substances (Disposal) Regulations 2001.

**SECTION 14 TRANSPORT INFORMATION****Labels Required**

	
Marine Pollutant	
HAZCHEM	•3Y

**Land transport (UN)**

Continued...

## RESENE BRUSH CLEANER LOW ODOUR

<b>UN number</b>	1263				
<b>Packing group</b>	III				
<b>UN proper shipping name</b>	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)				
<b>Environmental hazard</b>	No relevant data				
<b>Transport hazard class(es)</b>	<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				
<b>Special precautions for user</b>	<table border="1"> <tr> <td>Special provisions</td> <td>163;223;367</td> </tr> <tr> <td>Limited quantity</td> <td>5 L</td> </tr> </table>	Special provisions	163;223;367	Limited quantity	5 L
Special provisions	163;223;367				
Limited quantity	5 L				

## Air transport (ICAO-IATA / DGR)

<b>UN number</b>	1263														
<b>Packing group</b>	III														
<b>UN proper shipping name</b>	Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base); Paint related material (including paint thinning or reducing compounds)														
<b>Environmental hazard</b>	No relevant data														
<b>Transport hazard class(es)</b>	<table border="1"> <tr> <td>ICAO/IATA Class</td> <td>3</td> </tr> <tr> <td>ICAO / IATA Subrisk</td> <td>Not Applicable</td> </tr> <tr> <td>ERG Code</td> <td>3L</td> </tr> </table>	ICAO/IATA Class	3	ICAO / IATA Subrisk	Not Applicable	ERG Code	3L								
ICAO/IATA Class	3														
ICAO / IATA Subrisk	Not Applicable														
ERG Code	3L														
<b>Special precautions for user</b>	<table border="1"> <tr> <td>Special provisions</td> <td>A3 A72 A192</td> </tr> <tr> <td>Cargo Only Packing Instructions</td> <td>366</td> </tr> <tr> <td>Cargo Only Maximum Qty / Pack</td> <td>220 L</td> </tr> <tr> <td>Passenger and Cargo Packing Instructions</td> <td>355</td> </tr> <tr> <td>Passenger and Cargo Maximum Qty / Pack</td> <td>60 L</td> </tr> <tr> <td>Passenger and Cargo Limited Quantity Packing Instructions</td> <td>Y344</td> </tr> <tr> <td>Passenger and Cargo Limited Maximum Qty / Pack</td> <td>10 L</td> </tr> </table>	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
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)

<b>UN number</b>	1263						
<b>Packing group</b>	III						
<b>UN proper shipping name</b>	PAINT (including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)						
<b>Environmental hazard</b>	Marine Pollutant						
<b>Transport hazard class(es)</b>	<table border="1"> <tr> <td>IMDG Class</td> <td>3</td> </tr> <tr> <td>IMDG Subrisk</td> <td>Not Applicable</td> </tr> </table>	IMDG Class	3	IMDG Subrisk	Not Applicable		
IMDG Class	3						
IMDG Subrisk	Not Applicable						
<b>Special precautions for user</b>	<table border="1"> <tr> <td>EMS Number</td> <td>F-E, S-E</td> </tr> <tr> <td>Special provisions</td> <td>163 223 367 955</td> </tr> <tr> <td>Limited Quantities</td> <td>5 L</td> </tr> </table>	EMS Number	F-E, S-E	Special provisions	163 223 367 955	Limited Quantities	5 L
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 73 / 78 and the IBC code

Source	Ingredient	Pollution Category
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	benzyl alcohol	Y
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	naphtha, petroleum, hydrodesulfurised heavy	Y
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	naphthalene	X

## SECTION 15 REGULATORY INFORMATION

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

Continued...

## RESENE BRUSH CLEANER LOW ODOUR

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

HSR Number	Group Standard
HSR002652	Solvents (Flammable, Toxic [6.7]) Group Standard 2006

**BENZYL ALCOHOL(100-51-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

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

New Zealand Inventory of Chemicals (NZIoC)

**NAPHTHA, PETROLEUM, HYDRODESULFURISED HEAVY(64742-82-1.) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

New Zealand Inventory of Chemicals (NZIoC)

International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft

New Zealand Workplace Exposure Standards (WES)

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

**SOLVENT NAPHTHA PETROLEUM, HEAVY AROMATIC(64742-94-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

New Zealand Inventory of Chemicals (NZIoC)

**NAPHTHALENE(91-20-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

New Zealand Inventory of Chemicals (NZIoC)

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

New Zealand Workplace Exposure Standards (WES)

**ALCOHOLS C12-14 SECONDARY ETHOXYLATED(84133-50-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

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

New Zealand Inventory of Chemicals (NZIoC)

**Location Test Certificate**

Subject to Regulation 55 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations, a location test certificate is required when quantity greater than or equal to those indicated below are present.

Hazard Class	Quantity beyond which controls apply for closed containers	Quantity beyond which controls apply when use occurring in open containers
3.1C	500 L in containers greater than 5 L 1500 L in containers up to and including 5 L	250 L 250 L

**Approved Handler**

Subject to Regulation 56 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations and Regulation 9 of the Hazardous Substances (Classes 6, 8, and 9 Controls) Regulations, the substance must be under the personal control of an Approved Handler when present in a quantity greater than or equal to those indicated below.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (benzyl alcohol; alcohols C12-14 secondary ethoxylated; naphthalene; naphtha, petroleum, hydrodesulfurised heavy; solvent naphtha petroleum, heavy aromatic)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	N (alcohols C12-14 secondary ethoxylated)
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
<b>Legend:</b>	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

**SECTION 16 OTHER INFORMATION**
**Other information**
**Ingredients with multiple cas numbers**

Name	CAS No
naphtha, petroleum, hydrodesulfurised heavy	101795-02-2., 1030262-12-4., 121448-83-7., 50813-73-5., 54847-97-1., 61789-95-5., 64741-92-0., 64742-48-9., 64742-82-1., 64742-88-7., 64742-89-8., 8002-05-9., 8030-30-6., 8030-31-7., 8031-06-9., 8031-38-7., 8031-39-8., 8032-32-4., 8052-41-3.

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.

Continued...

**RESENE BRUSH CLEANER LOW ODOUR**

The (M)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  
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

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