

# Altex Elite 321 Brushing polyurethane Part A (MCR)

## Resene Paints (Australia) Limited

Chemwatch Hazard Alert Code: 4

Version No: 2.9  
Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Issue Date: 22/05/2023  
Print Date: 22/05/2023  
S.GHS.AUS.EN

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

#### Product Identifier

|                               |  |
|-------------------------------|--|
| Product name                  | Altex Elite 321 Brushing polyurethane Part A (MCR)   |
| 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 | Part A of an industrial two pack polyurethane |
|--------------------------|---|

#### Details of the manufacturer or supplier of the safety data sheet

|                         |   |  |
|-------------------------|---|--|
| Registered company name | Resene Paints (Australia) Limited                         | Altex Coatings Ltd   |
| Address                 | 7 Production Avenue, Molendinar Queensland 4214 Australia | 91-111 Oropi Road, Tauranga 3112 Tauranga (select) New Zealand   |
| Telephone               | +61 7 55126600  | +64 7 541 1221   |
| Fax                     | +61 7 55126697  | Not Available  |
| Website                 | <a href="http://www.resene.com.au">www.resene.com.au</a>  | <a href="http://www.altexcoatings.com">www.altexcoatings.com</a> |
| Email                   | Not Available   | neil.debenham@altexcoatings.co.nz                                |

#### Emergency telephone number

|                                   |                           |                         |                                     |
|-----------------------------------|---------------------------|-------------------------|-------------------------------------|
| Association / Organisation        | AUSTRALIAN POISONS CENTRE | NZ POISONS (24hr 7days) | CHEMWATCH EMERGENCY RESPONSE (24/7) |
| Emergency telephone numbers       | 131126                    | 0800 764766             | +61 1800 951 288                    |
| Other emergency telephone numbers | Not Available             | 0800 700112             | +61 3 9573 3188                     |

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

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

|                    |   |
|--------------------|---|
| Poisons Schedule   | Not Applicable  |
| Classification [1] | Flammable Liquids Category 3, Hazardous to the Aquatic Environment Acute Hazard Category 3, Serious Eye Damage/Eye Irritation Category 2B, Hazardous to the Aquatic Environment Long-Term Hazard Category 3 |
| Legend:            | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI   |

#### Label elements

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

#### Hazard statement(s)

|      |  |
|------|--|
| H226 | Flammable liquid and vapour.                       |
| H320 | Causes eye irritation.                             |
| H412 | Harmful to aquatic life with long lasting effects. |

#### Supplementary Phrases

Not Applicable

## Altex Elite 321 Brushing polyurethane Part A (MCR)

### Precautionary statement(s) Prevention

|      |  |
|------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P271 | Use only outdoors or in a well-ventilated area.  |
| P280 | Wear protective gloves and protective clothing.  |
| 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.  |
| P261 | Avoid breathing mist/vapours/spray.  |
| P273 | Avoid release to the environment.  |
| P272 | Contaminated work clothing should not be allowed out of the workplace.                         |

### 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.  |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].                         |

### Precautionary statement(s) Storage

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

### Precautionary statement(s) Disposal

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

## SECTION 3 Composition / information on ingredients

### Substances

See section below for composition of Mixtures

### Mixtures

| CAS No         | %[weight]  | Name   |
|----------------|--|--|
| 123-86-4       | 1-10   | <u>n-butyl acetate</u>   |
| 763-69-9       | 10-20  | <u>ethyl-3-ethoxypropionate</u>                                |
| 108-65-6       | 1-10   | <u>propylene glycol monomethyl ether acetate, alpha-isomer</u> |
| <b>Legend:</b> | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 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

|                     |   |
|---------------------|---|
| <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>▶ Immediately give a glass of water.</li> <li>▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> <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> </ul>  |

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

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

## SECTION 5 Firefighting measures

### Extinguishing media

## Altex Elite 321 Brushing polyurethane Part A (MCR)

- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

### 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 |
|-----------------------------|--|

### Advice for firefighters

|                              |  |
|------------------------------|--|
| <b>Fire Fighting</b>         |  |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Liquid and vapour are flammable.</li> <li>▶ Moderate fire hazard when exposed to heat or flame.</li> <li>▶ Vapour forms an explosive mixture with air.</li> <li>▶ Moderate explosion hazard when exposed to heat or flame.</li> <li>▶ Vapour may travel a considerable distance to source of ignition.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include:<br/>carbon monoxide (CO)<br/>carbon dioxide (CO<sub>2</sub>)<br/>other pyrolysis products typical of burning organic material.</p> <p><b>WARNING:</b> Long standing in contact with air and light may result in the formation of potentially explosive peroxides.</p> |
| <b>HAZCHEM</b>               | •3Y  |

## 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

|                     |   |
|---------------------|---|
| <b>Minor Spills</b> | <ul style="list-style-type: none"> <li>▶ Remove all ignition sources.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb small quantities with vermiculite or other absorbent material.</li> <li>▶ Wipe up.</li> <li>▶ Collect residues in a flammable waste container.</li> </ul> |
| <b>Major Spills</b> |   |

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>     | <ul style="list-style-type: none"> <li>▶ Containers, even those that have been emptied, may contain explosive vapours.</li> <li>▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers.</li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of overexposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ Avoid smoking, naked lights or ignition sources.</li> <li>▶ Avoid generation of static electricity.</li> <li>▶ <b>DO NOT use plastic buckets.</b></li> <li>▶ Earth all lines and equipment.</li> <li>▶ Use spark-free tools when handling.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul> |
| <b>Other information</b> | <ul style="list-style-type: none"> <li>▶ Store in original containers in approved flammable liquid storage area.</li> <li>▶ Store away from incompatible materials in a cool, dry, well-ventilated area.</li> <li>▶ <b>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</b></li> <li>▶ No smoking, naked lights, heat or ignition sources.</li> <li>▶ Storage areas should be clearly identified, well illuminated, clear of obstruction and accessible only to trained and authorised personnel -</li> </ul>  |

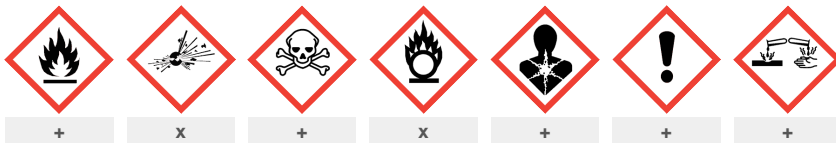
## Altex Elite 321 Brushing polyurethane Part A (MCR)

adequate security must be provided so that unauthorised personnel do not have access.

- ▶ Store according to applicable regulations for flammable materials for storage tanks, containers, piping, buildings, rooms, cabinets, allowable quantities and minimum storage distances.
- ▶ Use non-sparking ventilation systems, approved explosion proof equipment and intrinsically safe electrical systems.
- ▶ Have appropriate extinguishing capability in storage area (e.g. portable fire extinguishers - dry chemical, foam or carbon dioxide) and flammable gas detectors.
- ▶ Keep adsorbents for leaks and spills readily available.
- ▶ Protect containers against physical damage and check regularly for leaks.
- ▶ Observe manufacturer's storage and handling recommendations contained within this SDS.

### Conditions for safe storage, including any incompatibilities

|                                |   |
|--------------------------------|---|
| <b>Suitable container</b>      | <ul style="list-style-type: none"> <li>▶ Packing as supplied by manufacturer.</li> <li>▶ Plastic containers may only be used if approved for flammable liquid.</li> <li>▶ Check that containers are clearly labelled and free from leaks.</li> <li>▶ Manufactured product that requires stirring before use and having a viscosity of at least 20 cSt (25 deg. C): (i) Removable head packaging; (ii) Cans with friction closures and (iii) low pressure tubes and cartridges may be used.</li> </ul> |
| <b>Storage incompatibility</b> |   |



X — Must not be stored together

0 — May be stored together with specific preventions

+ — May be stored together

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

## SECTION 8 Exposure controls / personal protection

### Control parameters

#### Occupational Exposure Limits (OEL)

#### INGREDIENT DATA

| Source                       | Ingredient  | Material name                | TWA                             | STEL                            | Peak          | Notes         |
|------------------------------|---|------------------------------|---------------------------------|---------------------------------|---------------|---------------|
| Australia Exposure Standards | n-butyl acetate   | n-Butyl acetate              | 150 ppm / 713 mg/m <sup>3</sup> | 950 mg/m <sup>3</sup> / 200 ppm | Not Available | Not Available |
| Australia Exposure Standards | propylene glycol monomethyl ether acetate, alpha-isomer | 1-Methoxy-2-propanol acetate | 50 ppm / 274 mg/m <sup>3</sup>  | 548 mg/m <sup>3</sup> / 100 ppm | Not Available | Not Available |

#### Emergency Limits

| Ingredient  | TEEL-1        | TEEL-2        | TEEL-3        |
|---|---------------|---------------|---------------|
| n-butyl acetate   | Not Available | Not Available | Not Available |
| ethyl-3-ethoxypropionate                                | 1.6 ppm       | 18 ppm        | 110 ppm       |
| propylene glycol monomethyl ether acetate, alpha-isomer | Not Available | Not Available | Not Available |

| Ingredient  | Original IDLH | Revised IDLH  |
|---|---------------|---------------|
| n-butyl acetate   | 1,700 ppm     | Not Available |
| ethyl-3-ethoxypropionate                                | Not Available | Not Available |
| propylene glycol monomethyl ether acetate, alpha-isomer | Not Available | Not Available |

#### Occupational Exposure Banding

| Ingredient               | Occupational Exposure Band Rating | Occupational Exposure Band Limit |
|--------------------------|-----------------------------------|----------------------------------|
| ethyl-3-ethoxypropionate | 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.

### Exposure controls

|   |   |
|---|---|
| <b>Appropriate engineering controls</b> | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.</p> <p>Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh</p> |
|---|---|

Continued...

## Altex Elite 321 Brushing polyurethane Part A (MCR)

circulating air required to effectively remove the contaminant.

| Type of Contaminant:  | Air Speed:                      |
|---|---------------------------------|
| solvent, vapours, degreasing etc., evaporating from tank (in still air).  | 0.25-0.5 m/s<br>(50-100 f/min.) |
| aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5-1 m/s<br>(100-200 f/min.)   |
| direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)  | 1-2.5 m/s<br>(200-500 f/min.)   |

Within each range the appropriate value depends on:

| Lower end of the range                                     | Upper end of the range           |
|--|----------------------------------|
| 1: Room air currents minimal or favourable to capture      | 1: Disturbing room air currents  |
| 2: Contaminants of low toxicity or of nuisance value only. | 2: Contaminants of high toxicity |
| 3: Intermittent, low production.                           | 3: High production, heavy use    |
| 4: Large hood or large air mass in motion                  | 4: Small hood-local control only |

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

- Adequate ventilation is typically taken to be that which limits the average concentration to no more than 25% of the LEL within the building, room or enclosure containing the dangerous substance.
- Ventilation for plant and machinery is normally considered adequate if it limits the average concentration of any dangerous substance that might potentially be present to no more than 25% of the LEL. However, an increase up to a maximum 50% LEL can be acceptable where additional safeguards are provided to prevent the formation of a hazardous explosive atmosphere. For example, gas detectors linked to emergency shutdown of the process might be used together with maintaining or increasing the exhaust ventilation on solvent evaporating ovens and gas turbine enclosures.
- Temporary exhaust ventilation systems may be provided for non-routine higher-risk activities, such as cleaning, repair or maintenance in tanks or other confined spaces or in an emergency after a release. The work procedures for such activities should be carefully considered. The atmosphere should be continuously monitored to ensure that ventilation is adequate and the area remains safe. Where workers will enter the space, the ventilation should ensure that the concentration of the dangerous substance does not exceed 10% of the LEL (irrespective of the provision of suitable breathing apparatus)

Individual protection measures, such as personal protective equipment



Eye and face protection

- ▶ Safety glasses with side shields.
- ▶ Chemical goggles.
- ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]

Skin protection

See Hand protection below

Hands/feet protection

- ▶ Wear chemical protective gloves, e.g. PVC.
- ▶ Wear safety footwear or safety gumboots, e.g. Rubber

**NOTE:**

- ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

For esters:

- ▶ Do NOT use natural rubber, butyl rubber, EPDM or polystyrene-containing materials.

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. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.

## Altex Elite 321 Brushing polyurethane Part A (MCR)

|                         |   |
|-------------------------|---|
|                         | <ul style="list-style-type: none"> <li>· Contaminated gloves should be replaced.</li> <li>As defined in ASTM F-739-96 in any application, gloves are rated as:             <ul style="list-style-type: none"> <li>· Excellent when breakthrough time &gt; 480 min</li> <li>· Good when breakthrough time &gt; 20 min</li> <li>· Fair when breakthrough time &lt; 20 min</li> <li>· Poor when glove material degrades</li> </ul> </li> <li>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</li> <li>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</li> <li>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</li> <li>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:             <ul style="list-style-type: none"> <li>· Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.</li> <li>· Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential</li> </ul> </li> <li>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</li> </ul> |
| <b>Body protection</b>  | See Other protection below  |
| <b>Other protection</b> | <ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ PVC Apron.</li> <li>▶ PVC protective suit may be required if exposure severe.</li> <li>▶ Eyewash unit.</li> <li>▶ Ensure there is ready access to a safety shower.</li> <li>▶ Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.</li> <li>▶ For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).</li> <li>▶ Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds. Electrical resistance must range between 0 to 500,000 ohms. Conductive shoes should be stored in lockers close to the room in which they are worn. Personnel who have been issued conductive footwear should not wear them from their place of work to their homes and return.</li> </ul>  |

### 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:

Altex Elite 321 Brushing polyurethane Part A (MCR)

| Material          | CPI |
|-------------------|-----|
| BUTYL             | C   |
| BUTYL/NEOPRENE    | C   |
| HYPALON           | C   |
| NAT+NEOPR+NITRILE | C   |
| NATURAL RUBBER    | C   |
| NATURAL+NEOPRENE  | C   |
| NEOPRENE          | C   |
| NEOPRENE/NATURAL  | C   |
| NITRILE           | C   |
| NITRILE+PVC       | C   |
| PE                | C   |
| PE/EVAL/PE        | C   |
| PVA               | C   |
| PVC               | C   |
| PVDC/PE/PVDC      | C   |
| TEFLON            | C   |
| VITON             | C   |
| VITON/BUTYL       | 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. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

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**           | -                       |

^ - 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)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## Altex Elite 321 Brushing polyurethane Part A (MCR)

### Information on basic physical and chemical properties

|   |                         |  |               |
|---|-------------------------|--|---------------|
| <b>Appearance</b>                                   | coloured viscous liquid |  |               |
| <b>Physical state</b>                               | Liquid                  | <b>Relative density (Water = 1)</b>            | 1.39          |
| <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>          | 385           |
| <b>pH (as supplied)</b>                             | Not Available           | <b>Decomposition temperature (°C)</b>          | Not Available |
| <b>Melting point / freezing point (°C)</b>          | Not Available           | <b>Viscosity (cSt)</b>                         | 266.187       |
| <b>Initial boiling point and boiling range (°C)</b> | 151                     | <b>Molecular weight (g/mol)</b>                | Not Available |
| <b>Flash point (°C)</b>                             | 45                      | <b>Taste</b>                                   | Not Available |
| <b>Evaporation rate</b>                             | 0.4 BuAC = 1            | <b>Explosive properties</b>                    | Not Available |
| <b>Flammability</b>                                 | Flammable.              | <b>Oxidising properties</b>                    | Not Available |
| <b>Upper Explosive Limit (%)</b>                    | 9.9                     | <b>Surface Tension (dyn/cm or mN/m)</b>        | Not Available |
| <b>Lower Explosive Limit (%)</b>                    | 1.2                     | <b>Volatile Component (%vol)</b>               | 35            |
| <b>Vapour pressure (kPa)</b>                        | 0.5                     | <b>Gas group</b>                               | Not Available |
| <b>Solubility in water</b>                          | Immiscible              | <b>pH as a solution (1%)</b>                   | Not Available |
| <b>Vapour density (Air = 1)</b>                     | 4.6                     | <b>VOC g/L</b>                                 | 492.34        |

### SECTION 10 Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | See section 7  |
| <b>Chemical stability</b>                 | <ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul> |
| <b>Possibility of hazardous reactions</b> | See section 7  |
| <b>Conditions to avoid</b>                | See section 7  |
| <b>Incompatible materials</b>             | See section 7  |
| <b>Hazardous decomposition products</b>   | See section 5  |

### SECTION 11 Toxicological information

#### Information on toxicological effects

|                     |   |
|---------------------|---|
| <b>Inhaled</b>      | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.<br>Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.  |
| <b>Ingestion</b>    | The material has <b>NOT</b> been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.<br>Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)  |
| <b>Skin Contact</b> | Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.<br>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.<br>Open cuts, abraded or irritated skin should not be exposed to this material<br>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. |
| <b>Eye</b>          | There is some evidence to suggest that this material can cause eye irritation and damage in some persons.   |
| <b>Chronic</b>      | Studies show that inhaling this substance for over a long period (e.g. in an occupational setting) may increase the risk of cancer.<br>Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.<br>Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.<br>This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.   |

## Altex Elite 321 Brushing polyurethane Part A (MCR)

|   |  |  |
|---|--|--|
|   | Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility. Some glycol esters and their ethers cause wasting of the testicles, reproductive changes, infertility and changes to kidney function. Shorter chain compounds are more dangerous. |  |
| Altex Elite 321 Brushing polyurethane Part A (MCR)      | <b>TOXICITY</b>  | <b>IRRITATION</b>  |
|   | Not Available  | Not Available  |
| n-butyl acetate   | <b>TOXICITY</b>  | <b>IRRITATION</b>  |
|   | Dermal (rabbit) LD50: 3200 mg/kg <sup>[2]</sup>  | Eye (human): 300 mg * [PPG]                                      |
|   | Inhalation(Rat) LC50: 0.74 mg/l4h <sup>[2]</sup>   | Eye (rabbit): 20 mg (open)-SEVERE                                |
|   | Oral (Rabbit) LD50: 3200 mg/kg <sup>[2]</sup>  | Eye (rabbit): 20 mg/24h - moderate                               |
|   |  | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|   |  | Skin (rabbit): 500 mg/24h-moderate                               |
|   |  | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |
| ethyl-3-ethoxypropionate                                | <b>TOXICITY</b>  | <b>IRRITATION</b>  |
|   | Dermal (rabbit) LD50: 4076 mg/kg <sup>[2]</sup>  | Eye (rabbit): 500mg/24h - mild                                   |
|   | Inhalation(Rat) LC50: 1250 ppm4h <sup>[2]</sup>  | Skin (rabbit):10 mg/24h open mild                                |
|   | Oral (Rat) LD50: ~3200-5000 mg/kg <sup>[2]</sup>   |  |
| propylene glycol monomethyl ether acetate, alpha-isomer | <b>TOXICITY</b>  | <b>IRRITATION</b>  |
|   | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>  | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|   | Oral (Rat) LD50: 3739 mg/kg <sup>[2]</sup>   | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |
| <b>Legend:</b>  | 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  |  |

|  |  |                                 |                        |
|--|--|---------------------------------|------------------------|
| Altex Elite 321 Brushing polyurethane Part A (MCR)   | The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested. |                                 |                        |
|  | <b>Acute Toxicity</b>  | ✘                               | <b>Carcinogenicity</b> |
| <b>Skin Irritation/Corrosion</b>   | ✘  | <b>Reproductivity</b>           | ✘                      |
| <b>Serious Eye Damage/Irritation</b>   | ✔  | <b>STOT - Single Exposure</b>   | ✘                      |
| <b>Respiratory or Skin sensitisation</b>   | ✘  | <b>STOT - Repeated Exposure</b> | ✘                      |
| <b>Mutagenicity</b>  | ✘  | <b>Aspiration Hazard</b>        | ✘                      |
| <b>Legend:</b> ✘ – Data either not available or does not fill the criteria for classification<br>✔ – Data available to make classification |  |                                 |                        |

## SECTION 12 Ecological information

## Toxicity

|  |                 |                           |                               |               |               |
|--|-----------------|---------------------------|-------------------------------|---------------|---------------|
| Altex Elite 321 Brushing polyurethane Part A (MCR) | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>  | <b>Source</b> |
|  | Not Available   | Not Available             | Not Available                 | Not Available | Not Available |
| n-butyl acetate                                    | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>  | <b>Source</b> |
|  | LC50            | 96h                       | Fish                          | 17-19mg/l     | 4             |
|  | EC50            | 72h                       | Algae or other aquatic plants | 246mg/l       | 2             |
|  | EC50            | 48h                       | Crustacea                     | 32mg/l        | 1             |
|  | EC50(ECx)       | 96h                       | Fish                          | 18mg/l        | 2             |
| ethyl-3-ethoxypropionate                           | <b>Endpoint</b> | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>  | <b>Source</b> |
|  | EC50(ECx)       | 48h                       | Crustacea                     | 970mg/l       | 1             |
|  | EC50            | 72h                       | Algae or other aquatic plants | >114.86mg/l   | 2             |
|  | LC50            | 96h                       | Fish                          | 45.3mg/l      | 2             |

### Altex Elite 321 Brushing polyurethane Part A (MCR)

|  |  |                           |                               |              |               |
|--|--|---------------------------|-------------------------------|--------------|---------------|
|  | EC50   | 48h                       | Crustacea                     | 970mg/l      | 1             |
| <b>propylene glycol monomethyl ether acetate, alpha-isomer</b> | <b>Endpoint</b>  | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b> | <b>Source</b> |
|  | LC50   | 96h                       | Fish                          | 100mg/l      | 1             |
|  | EC50   | 72h                       | Algae or other aquatic plants | >1000mg/l    | 2             |
|  | EC50   | 48h                       | Crustacea                     | 373mg/l      | 2             |
|  | NOEC(ECx)  | 336h                      | Fish                          | 47.5mg/l     | 2             |
|  | EC50   | 96h                       | Algae or other aquatic plants | >1000mg/l    | 2             |
| <b>Legend:</b>   | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data |                           |                               |              |               |

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

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

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

#### Persistence and degradability

| Ingredient  | Persistence: Water/Soil | Persistence: Air |
|---|-------------------------|------------------|
| n-butyl acetate   | LOW                     | LOW              |
| ethyl-3-ethoxypropionate                                | LOW                     | LOW              |
| propylene glycol monomethyl ether acetate, alpha-isomer | LOW                     | LOW              |

#### Bioaccumulative potential

| Ingredient  | Bioaccumulation       |
|---|-----------------------|
| n-butyl acetate   | LOW (BCF = 14)        |
| ethyl-3-ethoxypropionate                                | LOW (LogKOW = 1.0809) |
| propylene glycol monomethyl ether acetate, alpha-isomer | LOW (LogKOW = 0.56)   |

#### Mobility in soil

| Ingredient  | Mobility           |
|---|--------------------|
| n-butyl acetate   | LOW (KOC = 20.86)  |
| ethyl-3-ethoxypropionate                                | LOW (KOC = 10)     |
| propylene glycol monomethyl ether acetate, alpha-isomer | HIGH (KOC = 1.838) |

## 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>▶ Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> </ul> <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>▶ Reduction</li> <li>▶ Reuse</li> <li>▶ Recycling</li> <li>▶ Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible.</li> <li>▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.</li> <li>▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material).</li> <li>▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.</li> </ul> |
|-------------------------------------|--|

## Altex Elite 321 Brushing polyurethane Part A (MCR)

### SECTION 14 Transport information

#### Labels Required

|                         |   |
|-------------------------|---|
|                         |  |
| <b>Marine Pollutant</b> | NO  |
| <b>HAZCHEM</b>          | *3Y   |

#### Land transport (ADG)

|                                     |  |                |
|-------------------------------------|--|----------------|
| <b>UN number or ID number</b>       | 1263   |                |
| <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>Transport hazard class(es)</b>   | Class  | 3              |
|                                     | Subsidiary risk  | Not Applicable |
| <b>Packing group</b>                | III  |                |
| <b>Environmental hazard</b>         | Not Applicable   |                |
| <b>Special precautions for user</b> | Special provisions   | 163 223 367    |
|                                     | Limited quantity   | 5 L            |

#### Air transport (ICAO-IATA / DGR)

|                                     |   |                |
|-------------------------------------|---|----------------|
| <b>UN number</b>                    | 1263  |                |
| <b>UN proper shipping name</b>      | Paint related material (including paint thinning or reducing compounds); Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) |                |
| <b>Transport hazard class(es)</b>   | ICAO/IATA Class   | 3              |
|                                     | ICAO / IATA Subrisk   | Not Applicable |
|                                     | ERG Code  | 3L             |
| <b>Packing group</b>                | III   |                |
| <b>Environmental hazard</b>         | Not Applicable  |                |
| <b>Special precautions for user</b> | 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>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>Transport hazard class(es)</b>   | IMDG Class   | 3               |
|                                     | IMDG Subrisk   | Not Applicable  |
| <b>Packing group</b>                | III  |                 |
| <b>Environmental hazard</b>         | Not Applicable   |                 |
| <b>Special precautions for user</b> | 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         |
|--------------------------|---------------|
| n-butyl acetate          | Not Available |
| ethyl-3-ethoxypropionate | Not Available |

Continued...

## Altex Elite 321 Brushing polyurethane Part A (MCR)

| Product name  | Group         |
|---|---------------|
| propylene glycol monomethyl ether acetate, alpha-isomer | Not Available |

### Transport in bulk in accordance with the IGC Code

| Product name  | Ship Type     |
|---|---------------|
| n-butyl acetate   | Not Available |
| ethyl-3-ethoxypropionate                                | Not Available |
| propylene glycol monomethyl ether acetate, alpha-isomer | Not Available |

## SECTION 15 Regulatory information

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

#### n-butyl acetate is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIC)

#### ethyl-3-ethoxypropionate is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIC)

#### propylene glycol monomethyl ether acetate, alpha-isomer is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIC)

### National Inventory Status

| National Inventory                             | Status  |
|--|---|
| Australia - AIC / Australia Non-Industrial Use | Yes   |
| Canada - DSL                                   | Yes   |
| Canada - NDSL                                  | No (n-butyl acetate; ethyl-3-ethoxypropionate; propylene glycol monomethyl ether acetate, alpha-isomer)   |
| China - IECSC                                  | Yes   |
| Europe - EINEC / ELINCS / NLP                  | Yes   |
| Japan - ENCS                                   | Yes   |
| Korea - KECI                                   | Yes   |
| New Zealand - NZIoC                            | Yes   |
| Philippines - PICCS                            | Yes   |
| USA - TSCA                                     | Yes   |
| Taiwan - TCSI                                  | Yes   |
| Mexico - INSQ                                  | Yes   |
| Vietnam - NCI                                  | Yes   |
| Russia - FBEPH                                 | Yes   |
| <b>Legend:</b>                                 | Yes = All CAS declared ingredients are on the inventory<br>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

|                      |            |
|----------------------|------------|
| <b>Revision Date</b> | 22/05/2023 |
| <b>Initial Date</b>  | 16/11/2021 |

### SDS Version Summary

| Version | Date of Update | Sections Updated   |
|---------|----------------|--|
| 1.9     | 22/05/2023     | Toxicological information - Acute Health (eye), Toxicological information - Acute Health (inhaled), Toxicological information - Acute Health (skin), Toxicological information - Acute Health (swallowed), Toxicological information - Chronic Health, Hazards identification - Classification, Exposure controls / personal protection - Exposure Standard, First Aid measures - First Aid (swallowed), Composition / information on ingredients - Ingredients, Accidental release measures - Spills (major), Handling and storage - Storage (storage incompatibility), Identification of the substance / mixture and of the company / undertaking - Supplier Information |

### 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. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

### 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

Continued...

**Altex Elite 321 Brushing polyurethane Part A (MCR)**

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  
AIIIC: 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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# Altex Elite 321 Brushing Polyurethane Part B

## Resene Paints (Australia) Ltd

Chemwatch Hazard Alert Code: 2

Version No: 7.7

Safety Data Sheet according to Work Health and Safety Regulations (Hazardous Chemicals) 2023 and ADG requirements

Issue Date: 06/01/2025

Print Date: 06/01/2025

S.GHS.AUS.EN

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

#### Product Identifier

|                               |  |
|-------------------------------|--|
| Product name                  | Altex Elite 321 Brushing Polyurethane Part B   |
| Synonyms                      | Not Available  |
| Proper shipping name          | PAINT RELATED MATERIAL (including paint thinning or reducing compound); PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) |
| Other means of identification | Not Available  |

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

|                          |  |
|--------------------------|--|
| Relevant identified uses | Part B of a two-pack industrial polyurethane |
|--------------------------|--|

#### Details of the manufacturer or supplier of the safety data sheet

|                         |  |  |
|-------------------------|--|--|
| Registered company name | Resene Paints (Australia) Ltd                            | Altex Coatings Ltd   |
| Address                 | 7 Production Avenue, Molendinar Queensland Australia     | 91-111 Oropi Road, Tauranga 3112 Tauranga (select) New Zealand   |
| Telephone               | +61 7 55126600   | +64 7 541 1221   |
| Fax                     | +61 7 55126697   | Not Available  |
| Website                 | <a href="http://www.resene.com.au">www.resene.com.au</a> | <a href="http://www.altexcoatings.com">www.altexcoatings.com</a> |
| Email                   | Not Available  | neil.debenham@altexcoatings.co.nz                                |

#### Emergency telephone number

|                                     |                           |                         |                                     |
|-------------------------------------|---------------------------|-------------------------|-------------------------------------|
| Association / Organisation          | AUSTRALIAN POISONS CENTRE | NZ POISONS (24hr 7days) | CHEMWATCH EMERGENCY RESPONSE (24/7) |
| Emergency telephone number(s)       | 131126                    | 0800 764766             | +61 1800 951 288                    |
| Other emergency telephone number(s) | Not Available             | 0800 700112             | +61 3 9573 3188                     |

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

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

|                               |  |
|-------------------------------|--|
| Poisons Schedule              | Not Applicable   |
| Classification <sup>[1]</sup> | Flammable Liquids Category 3, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A, Acute Toxicity (Inhalation) Category 4, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 3 |
| Legend:                       | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI  |

#### Label elements

|                     |   |
|---------------------|---|
| Hazard pictogram(s) |   |
|---------------------|---|

|             |         |
|-------------|---------|
| Signal word | Warning |
|-------------|---------|

#### Hazard statement(s)

|      |  |
|------|--|
| H226 | Flammable liquid and vapour.                       |
| H317 | May cause an allergic skin reaction.               |
| H319 | Causes serious eye irritation.                     |
| H332 | Harmful if inhaled.                                |
| H335 | May cause respiratory irritation.                  |
| H412 | Harmful to aquatic life with long lasting effects. |

#### Supplementary statement(s)

Not Applicable

## Altex Elite 321 Brushing Polyurethane Part B

### Precautionary statement(s) Prevention

|      |  |
|------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P271 | Use only a well-ventilated area.   |
| P280 | Wear protective gloves, protective clothing, eye protection and face protection.               |
| P240 | Ground and bond container and receiving equipment.   |
| P241 | Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.              |
| P242 | Use non-sparking tools.  |
| P243 | Take action to prevent static discharges.  |
| P261 | Avoid breathing mist/vapours/spray.  |
| P273 | Avoid release to the environment.  |
| P264 | Wash all exposed external body areas thoroughly after handling.                                |
| P272 | Contaminated work clothing should not be allowed out of the workplace.                         |

### Precautionary statement(s) Response

|                |  |
|----------------|--|
| P370+P378      | In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.  |
| P302+P352      | IF ON SKIN: Wash with plenty of water and soap.  |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P312           | Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.  |
| P333+P313      | If skin irritation or rash occurs: Get medical advice/attention.   |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |
| P362+P364      | Take off contaminated clothing and wash it before reuse.   |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].                         |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.   |

### Precautionary statement(s) Storage

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

### Precautionary statement(s) Disposal

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

## SECTION 3 Composition / information on ingredients

### Substances

See section below for composition of Mixtures

### Mixtures

| CAS No         | %[weight]  | Name   |
|----------------|--|--|
| 123-86-4       | 1-10   | <u>n-butyl acetate</u>                           |
| 64742-95-6.    | 1-10   | <u>naphtha petroleum, light aromatic solvent</u> |
| 822-06-0       | <=0.05   | <u>hexamethylene diisocyanate</u>                |
| Not Available  | 10-20  | propylene glycol monomethyl ether acetate        |
| <b>Legend:</b> | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 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

|                     |   |
|---------------------|---|
| <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 or combustion products are inhaled remove from contaminated area.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor, without delay.</li> </ul> <p>Following uptake by inhalation, move person to an area free from risk of further exposure. Oxygen or artificial respiration should be administered as needed. Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Treatment is essentially symptomatic. A physician should be consulted.</p> |
| <b>Ingestion</b>    | <ul style="list-style-type: none"> <li>▶ <b>If 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> </ul>   |

Continued...

## Altex Elite 321 Brushing Polyurethane Part B

- ▶ 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.
- ▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

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

Treat symptomatically.

## SECTION 5 Firefighting measures

### Extinguishing media

- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

### 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 |
|-----------------------------|--|

### Advice for firefighters

|                              |   |
|------------------------------|---|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ If safe, switch off electrical equipment until vapour fire hazard removed.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ Avoid spraying water onto liquid pools.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> </ul>   |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Liquid and vapour are flammable.</li> <li>▶ Moderate fire hazard when exposed to heat or flame.</li> <li>▶ Vapour forms an explosive mixture with air.</li> <li>▶ Moderate explosion hazard when exposed to heat or flame.</li> <li>▶ Vapour may travel a considerable distance to source of ignition.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include:<br/>           carbon dioxide (CO<sub>2</sub>)<br/>           carbon monoxide (CO)<br/>           isocyanates<br/>           and minor amounts of<br/>           hydrogen cyanide<br/>           nitrogen oxides (NO<sub>x</sub>)<br/>           other pyrolysis products typical of burning organic material.</p> |
| <b>HAZCHEM</b>               | *3Y   |

## 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

|                     |  |
|---------------------|--|
| <b>Minor Spills</b> | <ul style="list-style-type: none"> <li>▶ Remove all ignition sources.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Control personal contact with the substance, by using protective equipment.</li> <li>▶ Contain and absorb small quantities with vermiculite or other absorbent material.</li> <li>▶ Wipe up.</li> <li>▶ Collect residues in a flammable waste container.</li> </ul>  |
| <b>Major Spills</b> | <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ Consider evacuation (or protect in place).</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Water spray or fog may be used to disperse /absorb vapour.</li> <li>▶ Contain spill with sand, earth or vermiculite.</li> <li>▶ Use only spark-free shovels and explosion proof equipment.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Absorb remaining product with sand, earth or vermiculite.</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area and prevent runoff into drains.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</li> </ul> |

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

Continued...

## Altex Elite 321 Brushing Polyurethane Part B

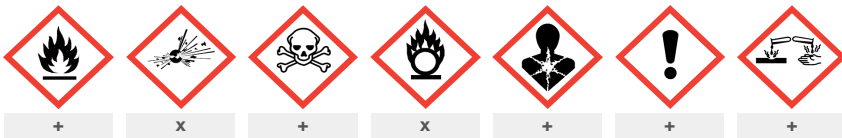
## SECTION 7 Handling and storage

## Precautions for safe handling

|                          |   |
|--------------------------|---|
| <b>Safe handling</b>     | <ul style="list-style-type: none"> <li>▶ Containers, even those that have been emptied, may contain explosive vapours.</li> <li>▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers.</li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of overexposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ Avoid smoking, naked lights or ignition sources.</li> <li>▶ Avoid generation of static electricity.</li> <li>▶ <b>DO NOT use plastic buckets.</b></li> <li>▶ Earth all lines and equipment.</li> <li>▶ Use spark-free tools when handling.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></li> <li>▶ Keep containers securely sealed when not in use.</li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul> |
| <b>Other information</b> | <ul style="list-style-type: none"> <li>▶ Store in original containers in approved flammable liquid storage area.</li> <li>▶ Store away from incompatible materials in a cool, dry, well-ventilated area.</li> <li>▶ <b>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</b></li> <li>▶ No smoking, naked lights, heat or ignition sources.</li> <li>▶ Storage areas should be clearly identified, well illuminated, clear of obstruction and accessible only to trained and authorised personnel - adequate security must be provided so that unauthorised personnel do not have access.</li> <li>▶ Store according to applicable regulations for flammable materials for storage tanks, containers, piping, buildings, rooms, cabinets, allowable quantities and minimum storage distances.</li> <li>▶ Use non-sparking ventilation systems, approved explosion proof equipment and intrinsically safe electrical systems.</li> <li>▶ Have appropriate extinguishing capability in storage area (e.g. portable fire extinguishers - dry chemical, foam or carbon dioxide) and flammable gas detectors.</li> <li>▶ Keep adsorbents for leaks and spills readily available.</li> <li>▶ Protect containers against physical damage and check regularly for leaks.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>   |

## Conditions for safe storage, including any incompatibilities

|                                |   |
|--------------------------------|---|
| <b>Suitable container</b>      | <ul style="list-style-type: none"> <li>▶ Packing as supplied by manufacturer.</li> <li>▶ Plastic containers may only be used if approved for flammable liquid.</li> <li>▶ Check that containers are clearly labelled and free from leaks.</li> <li>▶ For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.</li> </ul> |
| <b>Storage incompatibility</b> |   |



X — Must not be stored together

0 — May be stored together with specific preventions

+ — May be stored together

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

| Source                       | Ingredient                 | Material name              | TWA                             | STEL                            | Peak          | Notes         |
|------------------------------|----------------------------|----------------------------|---------------------------------|---------------------------------|---------------|---------------|
| Australia Exposure Standards | n-butyl acetate            | n-Butyl acetate            | 150 ppm / 713 mg/m <sup>3</sup> | 950 mg/m <sup>3</sup> / 200 ppm | Not Available | Not Available |
| Australia Exposure Standards | hexamethylene diisocyanate | Hexamethylene diisocyanate | Not Available                   | Not Available                   | Not Available | Not Available |

| Ingredient                                | Original IDLH | Revised IDLH  |
|---|---------------|---------------|
| n-butyl acetate                           | 1,700 ppm     | Not Available |
| naphtha petroleum, light aromatic solvent | Not Available | Not Available |
| hexamethylene diisocyanate                | Not Available | Not Available |

## Exposure controls

|   |   |
|---|---|
| <b>Appropriate engineering controls</b> | Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: |
|---|---|

Continued...

## Altex Elite 321 Brushing Polyurethane Part B

Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant. Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.

| Type of Contaminant:  | Air Speed:                   |
|---|------------------------------|
| solvent, vapours, degreasing etc., evaporating from tank (in still air).  | 0.25-0.5 m/s (50-100 f/min.) |
| aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5-1 m/s (100-200 f/min.)   |
| direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)  | 1-2.5 m/s (200-500 f/min.)   |

Within each range the appropriate value depends on:

| Lower end of the range                                     | Upper end of the range           |
|--|----------------------------------|
| 1: Room air currents minimal or favourable to capture      | 1: Disturbing room air currents  |
| 2: Contaminants of low toxicity or of nuisance value only. | 2: Contaminants of high toxicity |
| 3: Intermittent, low production.                           | 3: High production, heavy use    |
| 4: Large hood or large air mass in motion                  | 4: Small hood-local control only |

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

- Adequate ventilation is typically taken to be that which limits the average concentration to no more than 25% of the LEL within the building, room or enclosure containing the dangerous substance.
- Ventilation for plant and machinery is normally considered adequate if it limits the average concentration of any dangerous substance that might potentially be present to no more than 25% of the LEL. However, an increase up to a maximum 50% LEL can be acceptable where additional safeguards are provided to prevent the formation of a hazardous explosive atmosphere. For example, gas detectors linked to emergency shutdown of the process might be used together with maintaining or increasing the exhaust ventilation on solvent evaporating ovens and gas turbine enclosures.
- Temporary exhaust ventilation systems may be provided for non-routine higher-risk activities, such as cleaning, repair or maintenance in tanks or other confined spaces or in an emergency after a release. The work procedures for such activities should be carefully considered.. The atmosphere should be continuously monitored to ensure that ventilation is adequate and the area remains safe. Where workers will enter the space, the ventilation should ensure that the concentration of the dangerous substance does not exceed 10% of the LEL (irrespective of the provision of suitable breathing apparatus)

### Individual protection measures, such as personal protective equipment



### Eye and face protection

- ▶ Safety glasses with side shields.
- ▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]
- ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

### Skin protection

See Hand protection below

### Hands/feet protection

- ▶ Wear chemical protective gloves, e.g. PVC.
- ▶ Wear safety footwear or safety gumboots, e.g. Rubber

#### NOTE:

- ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

For esters:

- ▶ Do NOT use natural rubber, butyl rubber, EPDM or polystyrene-containing materials.

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. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.

## Altex Elite 321 Brushing Polyurethane Part B

Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.

Contaminated gloves should be replaced.

As defined in ASTM F-739-96 in any application, gloves are rated as:

- Excellent when breakthrough time > 480 min
- Good when breakthrough time > 20 min
- Fair when breakthrough time < 20 min
- Poor when glove material degrades

For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.

It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.

Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.

Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:

- Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.
- Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

**Body protection** See Other protection below

**Other protection**

- ▶ Overalls.
- ▶ PVC Apron.
- ▶ PVC protective suit may be required if exposure severe.
- ▶ Eyewash unit.
- ▶ Ensure there is ready access to a safety shower.
- ▶ Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
- ▶ For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets).
- ▶ Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot an shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds. Electrical resistance must range between 0 to 500,000 ohms. Conductive shoes should be stored in lockers close to the room in which they are worn. Personnel who have been issued conductive footwear should not wear them from their place of work to their homes and return.

**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:

Altex Elite 321 Brushing Polyurethane Part B

| Material         | CPI |
|------------------|-----|
| BUTYL            | C   |
| BUTYL/NEOPRENE   | C   |
| HYPALON          | C   |
| NATURAL RUBBER   | C   |
| NEOPRENE         | C   |
| NEOPRENE/NATURAL | C   |
| NITRILE          | C   |
| NITRILE+PVC      | C   |
| PE               | C   |
| PE/EVAL/PE       | C   |
| PVA              | C   |
| PVC              | C   |
| SARANEX-23       | C   |
| TEFLON           | C   |
| VITON/BUTYL      | 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 Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

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      | -                    | A-PAPR-AUS / Class 1   |
| up to 25 x ES                      | Air-line*            | A-2                  | A-PAPR-2               |
| up to 50 x ES                      | -                    | A-3                  | -                      |
| 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)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

**SECTION 9 Physical and chemical properties****Information on basic physical and chemical properties**

|                       |  |  |               |
|-----------------------|--|--|---------------|
| <b>Appearance</b>     | Clear Colour with Characteristic Odour |  |               |
| <b>Physical state</b> | Liquid                                 | <b>Relative density (Water = 1)</b>            | 1.10          |
| <b>Odour</b>          | Not Available                          | <b>Partition coefficient n-octanol / water</b> | Not Available |

Continued...

## Altex Elite 321 Brushing Polyurethane Part B

|   |               |  |               |
|---|---------------|--|---------------|
| <b>Odour threshold</b>                                | Not Available | <b>Auto-ignition temperature (°C)</b>                      | 333           |
| <b>pH (as supplied)</b>                               | Not Available | <b>Decomposition temperature (°C)</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>                               | 41            | <b>Taste</b>   | Not Available |
| <b>Evaporation rate</b>                               | 0.6 BuAC = 1  | <b>Explosive properties</b>                                | Not Available |
| <b>Flammability</b>                                   | Flammable.    | <b>Oxidising properties</b>                                | Not Available |
| <b>Upper Explosive Limit (%)</b>                      | 7.6           | <b>Surface Tension (dyn/cm or mN/m)</b>                    | Not Available |
| <b>Lower Explosive Limit (%)</b>                      | 1.6           | <b>Volatile Component (%vol)</b>                           | 24            |
| <b>Vapour pressure (kPa)</b>                          | 0.5           |  | Not Available |
| <b>Solubility in water</b>                            | Immiscible    | <b>pH as a solution (1%)</b>                               | Not Available |
| <b>Vapour density (Air = 1)</b>                       | 4.4           | <b>VOC g/L</b>   | 268           |
| <b>Heat of Combustion (kJ/g)</b>                      | Not Available | <b>Ignition Distance (cm)</b>                              | Not Available |
| <b>Flame Height (cm)</b>                              | Not Available | <b>Flame Duration (s)</b>                                  | Not Available |
| <b>Enclosed Space Ignition Time Equivalent (s/m3)</b> | Not Available | <b>Enclosed Space Ignition Deflagration Density (g/m3)</b> | Not Available |

## SECTION 10 Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | See section 7  |
| <b>Chemical stability</b>                 | <ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul> |
| <b>Possibility of hazardous reactions</b> | See section 7  |
| <b>Conditions to avoid</b>                | See section 7  |
| <b>Incompatible materials</b>             | See section 7  |
| <b>Hazardous decomposition products</b>   | See section 5  |

## SECTION 11 Toxicological information

## Information on toxicological effects

|                     |  |
|---------------------|--|
| <b>Inhaled</b>      | Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.<br>Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal. |
| <b>Ingestion</b>    | Accidental ingestion of the material may be damaging to the health of the individual.  |
| <b>Skin Contact</b> | Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material<br>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.   |
| <b>Eye</b>          | This material can cause eye irritation and damage in some persons.   |
| <b>Chronic</b>      | Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.  |

|   |  |   |
|---|--|---|
| <b>Altex Elite 321 Brushing Polyurethane Part B</b> | <b>TOXICITY</b>  | <b>IRRITATION</b>   |
|   | Not Available  | Not Available   |
| <b>n-butyl acetate</b>                              | <b>TOXICITY</b>  | <b>IRRITATION</b>   |
|   | Dermal (rabbit) LD50: 3200 mg/kg <sup>[2]</sup>                  | Eye (Human): 300ppm   |
|   | Inhalation (Rat) LC50: 0.74 mg/l4h <sup>[2]</sup>                | Eye (Rodent - rabbit): 100mg - Moderate                         |
|   | Oral (Rabbit) LD50: 3200 mg/kg <sup>[2]</sup>                    | Eye: no adverse effect observed (not irritating) <sup>[1]</sup> |
|   |  | Skin (Rodent - rabbit): 500mg/24H - Moderate                    |
|   | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |   |
| <b>naphtha petroleum, light aromatic solvent</b>    | <b>TOXICITY</b>  | <b>IRRITATION</b>   |
|   | Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>                 | Eye (Rodent - rabbit): 100uL/24H - Mild                         |

## Altex Elite 321 Brushing Polyurethane Part B

|                            |   |   |
|----------------------------|---|---|
|                            | Inhalation (Rat) LC50: >4.42 mg/L4h <sup>[1]</sup>  |   |
|                            | Oral (Rat) LD50: >4500 mg/kg <sup>[1]</sup>   |   |
| hexamethylene diisocyanate | <b>TOXICITY</b>   | <b>IRRITATION</b>   |
|                            | Dermal (rabbit) LD50: 593 mg/kg <sup>[2]</sup>  | Eye: adverse effect observed (irritating) <sup>[1]</sup>  |
|                            | Inhalation (Rat) LC50: 0.06 mg/L4h <sup>[2]</sup>   | Skin: adverse effect observed (corrosive) <sup>[1]</sup>  |
|                            | Oral (Mouse) LD50: 350 mg/kg <sup>[2]</sup>   | Skin: adverse effect observed (irritating) <sup>[1]</sup> |
| <b>Legend:</b>             | 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 |   |

|  |  |
|--|--|
| Altex Elite 321 Brushing Polyurethane Part B | Data demonstrate that during inhalation exposure, aromatic hydrocarbons undergo substantial partitioning into adipose tissues. Following cessation of exposure, the level of aromatic hydrocarbons in body fats rapidly declines. Thus, the aromatic hydrocarbons are unlikely to bioaccumulate in the body. Selective partitioning of the aromatic hydrocarbons into the non-adipose tissues is unlikely. No data is available regarding distribution following dermal absorption. However, distribution following this route of exposure is likely to resemble the pattern occurring with inhalation exposure.   |
|  | Aromatic hydrocarbons may undergo several different Phase I dealkylation, hydroxylation and oxidation reactions which may or may not be followed by Phase II conjugation to glycine, sulfation or glucuronidation. However, the major predominant biotransformation pathway is typical of that of the alkylbenzenes and consists of: (1) oxidation of one of the alkyl groups to an alcohol moiety; (2) oxidation of the hydroxyl group to a carboxylic acid; (3) the carboxylic acid is then conjugated with glycine to form a hippuric acid. The minor metabolites can be expected to consist of a complex mixture of isomeric triphenols, the sulfate and glucuronide conjugates of dimethylbenzyl alcohols, dimethylbenzoic acids and dimethylhippuric acids. Consistent with the low propensity for bioaccumulation of aromatic hydrocarbons, these substances are likely to be significant inducers of their own metabolism.<br>The predominant route of excretion of aromatic hydrocarbons following inhalation exposure involves either exhalation of the unmetabolized parent compound, or urinary excretion of its metabolites. When oral administration occurs, there is little exhalation of unmetabolized these hydrocarbons, presumably due to the first pass effect in the liver. Under these circumstances, urinary excretion of metabolites is the dominant route of excretion. |

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

|  |  |                           |                               |               |               |
|--|--|---------------------------|-------------------------------|---------------|---------------|
| Altex Elite 321 Brushing Polyurethane Part B | <b>Endpoint</b>  | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>  | <b>Source</b> |
|  | Not Available  | Not Available             | Not Available                 | Not Available | Not Available |
| n-butyl acetate                              | <b>Endpoint</b>  | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>  | <b>Source</b> |
|  | EC50   | 72h                       | Algae or other aquatic plants | 246mg/l       | 2             |
|  | EC50(ECx)  | 96h                       | Fish                          | 18mg/l        | 2             |
|  | EC50   | 48h                       | Crustacea                     | 32mg/l        | 1             |
|  | LC50   | 96h                       | Fish                          | 17-19mg/L     | 4             |
| naphtha petroleum, light aromatic solvent    | <b>Endpoint</b>  | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>  | <b>Source</b> |
|  | EC50   | 96h                       | Algae or other aquatic plants | 64mg/l        | 2             |
|  | EC50   | 72h                       | Algae or other aquatic plants | 19mg/l        | 1             |
|  | NOEC(ECx)  | 72h                       | Algae or other aquatic plants | 1mg/l         | 1             |
|  | EC50   | 48h                       | Crustacea                     | 6.14mg/l      | 1             |
| hexamethylene diisocyanate                   | <b>Endpoint</b>  | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>  | <b>Source</b> |
|  | EC50   | 72h                       | Algae or other aquatic plants | >77.4mg/l     | 2             |
|  | EC0(ECx)   | 24h                       | Crustacea                     | <0.33mg/l     | 1             |
|  | LC50   | 96h                       | Fish                          | 22mg/l        | 1             |
| <b>Legend:</b>                               | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data |                           |                               |               |               |

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

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

Continued...

## Altex Elite 321 Brushing Polyurethane Part B

## Persistence and degradability

| Ingredient                 | Persistence: Water/Soil | Persistence: Air |
|----------------------------|-------------------------|------------------|
| n-butyl acetate            | LOW                     | LOW              |
| hexamethylene diisocyanate | LOW                     | LOW              |

## Bioaccumulative potential

| Ingredient                 | Bioaccumulation    |
|----------------------------|--------------------|
| n-butyl acetate            | LOW (BCF = 14)     |
| hexamethylene diisocyanate | LOW (LogKOW = 3.2) |

## Mobility in soil

| Ingredient                 | Mobility              |
|----------------------------|-----------------------|
| n-butyl acetate            | LOW (Log KOC = 20.86) |
| hexamethylene diisocyanate | LOW (Log KOC = 5864)  |

## 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>▶ Return to supplier for reuse/ recycling if possible.</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> </ul> <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>▶ Reduction</li> <li>▶ Reuse</li> <li>▶ Recycling</li> <li>▶ Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible.</li> <li>▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.</li> <li>▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material).</li> <li>▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.</li> </ul> |
|-------------------------------------|--|

## SECTION 14 Transport information

## Labels Required

|   |     |
|---|-----|
|  |     |
| <b>Marine Pollutant</b>   | NO  |
| <b>HAZCHEM</b>  | •3Y |

## Land transport (ADG)

|                                    |  |                |
|------------------------------------|--|----------------|
| 14.1. UN number or ID number       | 1263   |                |
| 14.2. UN proper shipping name      | PAINT RELATED MATERIAL (including paint thinning or reducing compound); PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) |                |
| 14.3. Transport hazard class(es)   | Class  | 3              |
|                                    | Subsidiary Hazard  | Not Applicable |
| 14.4. Packing group                | III  |                |
| 14.5. Environmental hazard         | Not Applicable   |                |
| 14.6. Special precautions for user | Special provisions   | 163 223 367    |
|                                    | Limited quantity   | 5 L            |

## Air transport (ICAO-IATA / DGR)

|                 |      |
|-----------------|------|
| 14.1. UN number | 1263 |
|-----------------|------|

## Altex Elite 321 Brushing Polyurethane Part B

|                                    |   |                |
|------------------------------------|---|----------------|
| 14.2. UN proper shipping name      | Paint related material (including paint thinning or reducing compounds); Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) |                |
| 14.3. Transport hazard class(es)   | ICAO/IATA Class   | 3              |
|                                    | ICAO / IATA Subsidiary Hazard   | Not Applicable |
|                                    | ERG Code  | 3L             |
| 14.4. Packing group                | III   |                |
| 14.5. Environmental hazard         | Not Applicable  |                |
| 14.6. 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)

|                                    |  |                 |
|------------------------------------|--|-----------------|
| 14.1. UN number                    | 1263   |                 |
| 14.2. UN proper shipping name      | PAINT RELATED MATERIAL (including paint thinning or reducing compound); PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) |                 |
| 14.3. Transport hazard class(es)   | IMDG Class   | 3               |
|                                    | IMDG Subsidiary Hazard   | Not Applicable  |
| 14.4. Packing group                | III  |                 |
| 14.5. Environmental hazard         | Not Applicable   |                 |
| 14.6. Special precautions for user | EMS Number   | F-E , S-E       |
|                                    | Special provisions   | 163 223 367 955 |
|                                    | Limited Quantities   | 5 L             |

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

Not Applicable

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

| Product name                              | Group         |
|---|---------------|
| n-butyl acetate                           | Not Available |
| naphtha petroleum, light aromatic solvent | Not Available |
| hexamethylene diisocyanate                | Not Available |
| propylene glycol monomethyl ether acetate | Not Available |

## 14.7.3. Transport in bulk in accordance with the IGC Code

| Product name                              | Ship Type     |
|---|---------------|
| n-butyl acetate                           | Not Available |
| naphtha petroleum, light aromatic solvent | Not Available |
| hexamethylene diisocyanate                | Not Available |
| propylene glycol monomethyl ether acetate | Not Available |

## SECTION 15 Regulatory information

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

## n-butyl acetate is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australian Inventory of Industrial Chemicals (AIIC)

## naphtha petroleum, light aromatic solvent is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australian Inventory of Industrial Chemicals (AIIC)  
 Chemical Footprint Project - Chemicals of High Concern List

## hexamethylene diisocyanate is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australia Model Work Health and Safety Regulations - Hazardous chemicals (other than lead) requiring health monitoring  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6  
 Australian Inventory of Industrial Chemicals (AIIC)

Continued...

## Altex Elite 321 Brushing Polyurethane Part B

## Additional Regulatory Information

Not Applicable

## National Inventory Status

| National Inventory                              | Status  |
|---|---|
| Australia - AIIC / Australia Non-Industrial Use | Yes   |
| Canada - DSL                                    | Yes   |
| Canada - NDSL                                   | No (n-butyl acetate; naphtha petroleum, light aromatic solvent; hexamethylene diisocyanate; propylene glycol monomethyl ether acetate)  |
| China - IECSC                                   | Yes   |
| Europe - EINEC / ELINCS / NLP                   | Yes   |
| Japan - ENCS                                    | Yes   |
| Korea - KECI                                    | Yes   |
| New Zealand - NZIoC                             | Yes   |
| Philippines - PICCS                             | Yes   |
| USA - TSCA                                      | All chemical substances in this product have been designated as TSCA Inventory 'Active'   |
| Taiwan - TCSI                                   | Yes   |
| Mexico - INSQ                                   | Yes   |
| Vietnam - NCI                                   | Yes   |
| Russia - FBEPH                                  | Yes   |
| <b>Legend:</b>                                  | Yes = All CAS declared ingredients are on the inventory<br>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

|                      |            |
|----------------------|------------|
| <b>Revision Date</b> | 06/01/2025 |
| <b>Initial Date</b>  | 19/09/2017 |

## SDS Version Summary

| Version | Date of Update | Sections Updated   |
|---------|----------------|--|
| 6.7     | 06/01/2025     | Physical and chemical properties - Appearance, Hazards identification - Classification, Composition / information on ingredients - Ingredients, Identification of the substance / mixture and of the company / undertaking - Use |

## 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. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

## 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
- ▶ DNEL: Derived No-Effect Level
- ▶ PNEC: Predicted no-effect concentration
- ▶ MARPOL: International Convention for the Prevention of Pollution from Ships
- ▶ IMSBC: International Maritime Solid Bulk Cargoes Code
- ▶ IGC: International Gas Carrier Code
- ▶ IBC: International Bulk Chemical Code
  
- ▶ 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

Continued...

**Altex Elite 321 Brushing Polyurethane Part B**

- ▶ NCI: National Chemical Inventory
- ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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