# Aalto Ultra Premium Waterbased Enamel

## Aalto Group Ltd

Chemwatch: **7972-69**
Version No: **2.1**
Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Chemwatch Hazard Alert Code: **2**

Initial Date: **13/08/2025**
Revision Date: **13/08/2025**
Print Date: **14/08/2025**
S.GHS.NZL.EN.E

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

### Product Identifier

| | |
|---|---|
| **Product name** | Aalto Ultra Premium Waterbased Enamel |
| **Chemical Name** | Not Applicable |
| **Synonyms** | Aalto Ultra Premium Waterbased Enamel Gloss 334; Semi Gloss 335; Low Sheen 336; Satin 337 |
| **Chemical formula** | Not Applicable |
| **Other means of identification** | Not Available |

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

| | |
|---|---|
| **Relevant identified uses** | Interior decorative paint.<br>Use according to manufacturer's directions. |

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

| | |
|---|---|
| **Registered company name** | **Aalto Group Ltd** |
| **Address** | 7 Akatea Road Glendene Auckland 0602 New Zealand |
| **Telephone** | +64 9 818 9215 |
| **Fax** | Not Available |
| **Website** | www.aaltopaint.co.nz |
| **Email** | info@aalto.co.nz |

### Emergency telephone number

| | | |
|---|---|---|
| **Association / Organisation** | **Aalto Group Ltd** | **CHEMWATCH EMERGENCY RESPONSE (24/7)** |
| **Emergency telephone number(s)** | +64 800 700 112 | +64 800 700 112 (ID#: 7972-69) |
| **Other emergency telephone number(s)** | 0800 764 766 (NZ POISONS) | +61 3 9573 3188 |

## SECTION 2 Hazards identification

### Classification of the substance or mixture

| | |
|---|---|
| **Classification [1]** | Serious Eye Damage/Eye Irritation Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 3 |
| ***Legend:*** | ***1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI*** |
| **Determined by Chemwatch using GHS/HSNO criteria** | 6.4A, 9.1C |

### Label elements

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

### Hazard statement(s)

| | |
|---|---|
| **H319** | Causes serious eye irritation. |
| **H412** | Harmful to aquatic life with long lasting effects. |

### Precautionary statement(s) General

| | |
|---|---|
| **P101** | If medical advice is needed, have product container or label at hand. |
| **P102** | Keep out of reach of children. |

**Page 1 continued...**

| | |
|---|---|
| **P103** | Read carefully and follow all instructions. |

**Precautionary statement(s) Prevention**

| | |
|---|---|
| **P273** | Avoid release to the environment. |
| **P280** | Wear protective gloves, protective clothing, eye protection and face protection. |
| **P264** | Wash all exposed external body areas thoroughly after handling. |

**Precautionary statement(s) Response**

| | |
|---|---|
| **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. |

**Precautionary statement(s) Storage**

Not Applicable

**Precautionary statement(s) Disposal**

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

No further product hazard information.

## SECTION 3 Composition / information on ingredients

**Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No | %[weight] | Name |
|---|---|---|
| 13463-67-7 | 10-30 | C.I. Pigment White 6 |
| 1317-65-3 | 1-10 | calcium carbonate |
| 57-55-6 | 1-10 | propylene glycol |
| 78330-21-9 | <1 | alcohols C11-14-iso-, C13-rich, ethoxylated |
| 111-75-1 | <1 | 2-butylaminoethanol |
| 1336-21-6 | <1 | ammonium hydroxide |
| 1314-13-2 | <1 | zinc oxide |
| Not Available | balance | Ingredients determined not to be hazardous |
| ***Legend:*** | ***1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available*** | |

## SECTION 4 First aid measures

**Description of first aid measures**

| | |
|---|---|
| **Eye Contact** | If this product comes in contact with the eyes:<br>▸ Immediately hold eyelids apart and flush the eye continuously with running water.<br>▸ 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.<br>▸ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.<br>▸ Transport to hospital or doctor without delay.<br>▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| **Skin Contact** | If skin contact occurs:<br>▸ Immediately remove all contaminated clothing, including footwear.<br>▸ Flush skin and hair with running water (and soap if available).<br>▸ Seek medical attention in event of irritation. |
| **Inhalation** | ▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area.<br>▸ Other measures are usually unnecessary. |
| **Ingestion** | ▸ If swallowed do **NOT** induce vomiting.<br>▸ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.<br>▸ Observe the patient carefully.<br>▸ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.<br>▸ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.<br>▸ Seek medical advice. |

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

Treat symptomatically.

## SECTION 5 Firefighting measures

**Extinguishing media**

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

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

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

**Advice for firefighters**

**Continued...**

| | |
|---|---|
| **Fire Fighting** | ▸ Alert Fire Brigade and tell them location and nature of hazard.<br>▸ Wear breathing apparatus plus protective gloves in the event of a fire.<br>▸ Prevent, by any means available, spillage from entering drains or water courses.<br>▸ Use fire fighting procedures suitable for surrounding area.<br>▸ **DO NOT** approach containers suspected to be hot.<br>▸ Cool fire exposed containers with water spray from a protected location.<br>▸ If safe to do so, remove containers from path of fire.<br>▸ Equipment should be thoroughly decontaminated after use. |
| **Fire/Explosion Hazard** | ▸ Non combustible.<br>▸ Not considered a significant fire risk, however containers may burn.<br>Decomposes on heating and produces:<br>carbon dioxide ($CO_2$)<br>hydrogen iodide<br>nitrogen oxides ($NO_x$)<br>phosphorus oxides ($PO_x$)<br>silicon dioxide ($SiO_2$)<br>metal oxides<br>other pyrolysis products typical of burning organic material.<br>May emit poisonous fumes.<br>May emit corrosive fumes.<br>**CARE**: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns.<br>Foaming may cause overflow of containers and may result in possible fire. |

## SECTION 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

### Methods and material for containment and cleaning up

| | |
|---|---|
| **Minor Spills** | ▸ Clean up all spills immediately.<br>▸ Avoid breathing vapours and contact with skin and eyes.<br>▸ Control personal contact with the substance, by using protective equipment.<br>▸ Contain and absorb spill with sand, earth, inert material or vermiculite.<br>▸ Wipe up.<br>▸ Place in a suitable, labelled container for waste disposal. |
| **Major Spills** | Moderate hazard.<br>▸ Clear area of personnel and move upwind.<br>▸ Alert Fire Brigade and tell them location and nature of hazard.<br>▸ Wear breathing apparatus plus protective gloves.<br>▸ Prevent, by any means available, spillage from entering drains or water course.<br>▸ Stop leak if safe to do so.<br>▸ Contain spill with sand, earth or vermiculite.<br>▸ Collect recoverable product into labelled containers for recycling.<br>▸ Neutralise/decontaminate residue (see Section 13 for specific agent).<br>▸ Collect solid residues and seal in labelled drums for disposal.<br>▸ Wash area and prevent runoff into drains.<br>▸ After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.<br>▸ If contamination of drains or waterways occurs, advise emergency services. |

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

## SECTION 7 Handling and storage

### Precautions for safe handling

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|---|---|
| **Safe handling** | ▸ **DO NOT** allow clothing wet with material to stay in contact with skin<br>▸ Avoid all personal contact, including inhalation.<br>▸ Wear protective clothing when risk of exposure occurs.<br>▸ Use in a well-ventilated area.<br>▸ Prevent concentration in hollows and sumps.<br>▸ **DO NOT** enter confined spaces until atmosphere has been checked.<br>▸ **DO NOT** allow material to contact humans, exposed food or food utensils.<br>▸ Avoid contact with incompatible materials.<br>▸ When handling, **DO NOT** eat, drink or smoke.<br>▸ Keep containers securely sealed when not in use.<br>▸ Avoid physical damage to containers.<br>▸ Always wash hands with soap and water after handling.<br>▸ Work clothes should be laundered separately. Launder contaminated clothing before re-use.<br>▸ Use good occupational work practice.<br>▸ Observe manufacturer's storage and handling recommendations contained within this SDS.<br>▸ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained. |
| **Other information** | ▸ Store in original containers.<br>▸ Keep containers securely sealed.<br>▸ Store in a cool, dry, well-ventilated area.<br>▸ Store away from incompatible materials and foodstuff containers.<br>▸ Protect containers against physical damage and check regularly for leaks.<br>▸ Observe manufacturer's storage and handling recommendations contained within this SDS. |

### Conditions for safe storage, including any incompatibilities

| | |
|---|---|
| **Suitable container** | ▸ Polyethylene or polypropylene container.<br>▸ Packing as recommended by manufacturer.<br>▸ Check all containers are clearly labelled and free from leaks. |
| **Storage incompatibility** | ▸ Avoid strong acids, bases. |

**Continued...**

| | |
|---|---|
| | ▸ Avoid reaction with oxidising agents |

## SECTION 8 Exposure controls / personal protection

### Control parameters

**Occupational Exposure Limits (OEL)**

**INGREDIENT DATA**

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|---|---|---|---|---|---|---|
| New Zealand Workplace Exposure Standards (WES) | C.I. Pigment White 6 | Titanium dioxide ultrafine dust | 0.2 mg/m3 | Not Available | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | C.I. Pigment White 6 | Titanium dioxide respirable dust | 2.5 mg/m3 | Not Available | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | calcium carbonate | Calcium carbonate | 10 mg/m3 | Not Available | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | calcium carbonate | Limestone (Calcium carbonate) | 10 mg/m3 | Not Available | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | propylene glycol | Propane-1,2-diol, Particulates only | 10 mg/m3 | Not Available | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | propylene glycol | Propane-1,2-diol, Vapour and particulates | 150 ppm / 474 mg/m3 | Not Available | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | zinc oxide | Zinc oxide | 2 mg/m3 | 5 mg/m3 | Not Available | Not Available |
| New Zealand Workplace Exposure Standards (WES) | zinc oxide | Zinc oxide respirable dust | 0.1 mg/m3 | 0.5 mg/m3 | Not Available | Not Available |

| Ingredient | Original IDLH | Revised IDLH |
|---|---|---|
| C.I. Pigment White 6 | 5,000 mg/m3 | Not Available |
| calcium carbonate | Not Available | Not Available |
| propylene glycol | Not Available | Not Available |
| alcohols C11-14-iso-, C13-rich, ethoxylated | Not Available | Not Available |
| 2-butylaminoethanol | Not Available | Not Available |
| ammonium hydroxide | Not Available | Not Available |
| zinc oxide | 500 mg/m3 | Not Available |

### Exposure controls

**Appropriate engineering controls**

CARE: Explosive vapour air mixtures may be present on opening vessels which have contained liquid ammonia. Fatalities have occurred
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:
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.

Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.
An approved self contained breathing apparatus (SCBA) may be required in some situations.
Provide adequate ventilation in warehouse or closed storage area. 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.) |
| grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion). | 2.5-10 m/s (500-2000 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.

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| | |
|---|---|
| **Individual protection measures, such as personal protective equipment** |  |
| **Eye and face protection** | ▸ Safety glasses with side shields.<br>▸ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]<br>▸ 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.<br>▸ Wear safety footwear or safety gumboots, e.g. Rubber<br>**NOTE:**<br>▸ 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.<br>▸ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.<br>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.<br>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.<br>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.<br>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:<br>· frequency and duration of contact,<br>· chemical resistance of glove material,<br>· glove thickness and<br>· dexterity<br>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).<br>· 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.<br>· 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.<br>· Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.<br>· Contaminated gloves should be replaced.<br>As defined in ASTM F-739-96 in any application, gloves are rated as:<br>· Excellent when breakthrough time > 480 min<br>· Good when breakthrough time > 20 min<br>· Fair when breakthrough time < 20 min<br>· Poor when glove material degrades<br>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.<br>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.<br>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.<br>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:<br>· 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.<br>· 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<br>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.<br>▸ P.V.C apron.<br>▸ Barrier cream.<br>▸ Skin cleansing cream.<br>▸ Eye wash unit. |

### 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:
Aalto WB Enamel Base Range

| Material | CPI |
|---|---|
| BUTYL | C |
| HYPALON | C |
| NAT+NEOPR+NITRILE | C |
| NATURAL RUBBER | C |
| NATURAL+NEOPRENE | C |
| NEOPRENE | C |
| NEOPRENE/NATURAL | C |
| NITRILE | C |
| NITRILE+PVC | C |

### Respiratory protection

Type AK-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 10 x ES | AK-AUS P2 | - | AK-PAPR-AUS / Class 1 P2 |
| up to 50 x ES | - | AK-AUS / Class 1 P2 | - |
| up to 100 x ES | - | AK-2 P2 | AK-PAPR-2 P2 ^ |

^ - 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(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO =

**Continued...**

| | |
|---|---|
| PE/EVAL/PE | C |
| PVA | C |
| PVC | C |
| SARANEX-23 | C |
| VITON | C |

* CPI - Chemwatch Performance Index
A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion
**NOTE**: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -
* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

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

| | |
|---|---|
| **Appearance** | Liquid with mild odour; mixes with water. |

| | | | |
|---|---|---|---|
| **Physical state** | Liquid | **Relative density (Water = 1)** | Not Available |
| **Odour** | Slight | **Partition coefficient n-octanol / water** | Not Available |
| **Odour threshold** | Not Available | **Auto-ignition temperature (°C)** | Not Applicable |
| **pH (as supplied)** | 8.5-9.5 | **Decomposition temperature (°C)** | Not Available |
| **Melting point / freezing point (°C)** | Not Applicable | **Viscosity (cSt)** | Not Available |
| **Initial boiling point and boiling range (°C)** | Not Available | **Molecular weight (g/mol)** | Not Applicable |
| **Flash point (°C)** | Not Applicable | **Taste** | Not Available |
| **Evaporation rate** | Not Available | **Explosive properties** | Not Available |
| **Flammability** | Not Applicable | **Oxidising properties** | Not Available |
| **Upper Explosive Limit (%)** | Not Applicable | **Surface Tension (dyn/cm or mN/m)** | Not Available |
| **Lower Explosive Limit (%)** | Not Applicable | **Volatile Component (%vol)** | Not Available |
| **Vapour pressure (kPa)** | Not Available | **Gas group** | Not Available |
| **Solubility in water** | Miscible | **pH as a solution (1%)** | Not Available |
| **Vapour density (Air = 1)** | Not Available | **VOC g/L** | Not Available |
| **Heat of Combustion (kJ/g)** | Not Available | **Ignition Distance (cm)** | Not Available |
| **Flame Height (cm)** | Not Available | **Flame Duration (s)** | Not Available |
| **Enclosed Space Ignition Time Equivalent (s/m3)** | Not Available | **Enclosed Space Ignition Deflagration Density (g/m3)** | Not Available |

## SECTION 10 Stability and reactivity

| | |
|---|---|
| **Reactivity** | See section 7 |
| **Chemical stability** | - Unstable in the presence of incompatible materials.<br>- Product is considered stable.<br>- Hazardous polymerisation will not occur. |
| **Possibility of hazardous reactions** | See section 7 |
| **Conditions to avoid** | See section 7 |
| **Incompatible materials** | See section 7 |
| **Hazardous decomposition products** | See section 5 |

## SECTION 11 Toxicological information

### Information on toxicological effects

| | |
|---|---|
| **a) Acute Toxicity** | Based on available data, the classification criteria are not met. |
| **b) Skin Irritation/Corrosion** | Based on available data, the classification criteria are not met. |
| **c) Serious Eye Damage/Irritation** | There is sufficient evidence to classify this material as eye damaging or irritating |
| **d) Respiratory or Skin sensitisation** | Based on available data, the classification criteria are not met. |
| **e) Mutagenicity** | Based on available data, the classification criteria are not met. |
| **f) Carcinogenicity** | Based on available data, the classification criteria are not met. |
| **g) Reproductivity** | Based on available data, the classification criteria are not met. |

**Continued...**

| | |
|---|---|
| **h) STOT - Single Exposure** | Based on available data, the classification criteria are not met. |
| **i) STOT - Repeated Exposure** | Based on available data, the classification criteria are not met. |
| **j) Aspiration Hazard** | Based on available data, the classification criteria are not met. |

| | |
|---|---|
| **Inhaled** | The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and 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 oil droplets or aerosols may cause discomfort and may produce chemical inflammation of the lungs.<br>The highly irritant properties of ammonia vapour result as the gas dissolves in mucous fluids and forms irritant, even corrosive solutions.<br>Inhalation of the ammonia fumes causes coughing, vomiting, reddening of lips, mouth, nose, throat and conjunctiva while higher concentrations can cause temporary blindness, restlessness, tightness in the chest, pulmonary oedema (lung damage), weak pulse and cyanosis.<br>Inhalation of high concentrations of vapour may cause breathing difficulty, tightness in chest, pulmonary oedema and lung damage. Brief exposure to high concentrations > 5000 ppm may cause death due to asphyxiation (suffocation) or fluid in the lungs.<br>Prolonged or regular minor exposure to the vapour may cause persistent irritation of the eyes, nose and upper respiratory tract. Massive ammonia exposures may produce chronic airway hyperactivity and asthma with associated pulmonary function changes. The average nasal retention of ammonia by human subjects was found to be 83%. |
| **Ingestion** | Accidental ingestion of the material may be damaging to the health of the individual. |
| **Skin Contact** | The material may accentuate any pre-existing dermatitis condition<br>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. |
| **Eye** | This material causes serious eye irritation. |
| **Chronic** | There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population.<br>Long term exposure to titanium and several of its compounds produces lung scarring and chronic bronchitis. Breathing is impaired and cardiac changes with right heart enlargements occur.<br>Prolonged or repeated minor exposure to ammonia gas/vapour may cause long-term irritation to the eyes, nose and upper airway. Repeated exposure or prolonged contact may produce skin inflammation and conjunctivitis. Other effects may include ulcers in the mouth and disturbances to the bronchi and gastrointestinal tract. In animals, repeated exposure to sublethal levels produces adverse effects on the airways, liver, kidneys and spleen, as well as eye irritation and clouding of the cornea.<br>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.<br>Overexposure to the breathable dust may cause coughing, wheezing, difficulty in breathing and impaired lung function. Chronic symptoms may include decreased vital lung capacity and chest infections. Repeated exposures in the workplace to high levels of fine-divided dusts may produce a condition known as pneumoconiosis, which is the lodgement of any inhaled dusts in the lung, irrespective of the effect. This is particularly true when a significant number of particles less than 0.5 microns (1/50000 inch) are present. Lung shadows are seen in the X-ray. Symptoms of pneumoconiosis may include a progressive dry cough, shortness of breath on exertion, increased chest expansion, weakness and weight loss. As the disease progresses, the cough produces stringy phlegm, vital capacity decreases further, and shortness of breath becomes more severe. Other signs or symptoms include changed breath sounds, reduced oxygen uptake during exercise, emphysema and rarely, pneumothorax (air in the lung cavity).<br>Removing workers from the possibility of further exposure to dust generally stops the progress of lung abnormalities. When there is high potential for worker exposure, examinations at regular period with emphasis on lung function should be performed.<br>Inhaling dust over an extended number of years may cause pneumoconiosis, which is the accumulation of dusts in the lungs and the subsequent tissue reaction. This may or may not be reversible. |

| **Aalto WB Enamel Base Range** | **TOXICITY** | **IRRITATION** |
|---|---|---|
| | Not Available | Not Available |

| **C.I. Pigment White 6** | **TOXICITY** | **IRRITATION** |
|---|---|---|
| | dermal (hamster) LD50: >=10000 mg/kg[2] | Eye: no adverse effect observed (not irritating)[1] |
| | Inhalation (Rat) LC50: >2.28 mg/l4h[1] | Skin (Human): 300ug/3D (intermittent) - Mild |
| | Oral (Rat) LD50: >=2000 mg/kg[1] | Skin: no adverse effect observed (not irritating)[1] |

| **calcium carbonate** | **TOXICITY** | **IRRITATION** |
|---|---|---|
| | dermal (rat) LD50: >2000 mg/kg[1] | Eye (Rodent - rabbit): 750ug/24H - Severe |
| | Inhalation (Rat) LC50: >3 mg/l4h[1] | Eye: no adverse effect observed (not irritating)[1] |
| | Oral (Rat) LD50: >2000 mg/kg[1] | Skin (Rodent - rabbit): 500mg/24H - Moderate |
| | | Skin: no adverse effect observed (not irritating)[1] |

| **propylene glycol** | **TOXICITY** | **IRRITATION** |
|---|---|---|
| | Dermal (rabbit) LD50: 11890 mg/kg[2] | Eye (Rodent - rabbit): 100mg - Mild |
| | Inhalation (Rat) LC50: >44.9 mg/l4h[1] | Eye (Rodent - rabbit): 500mg/24H - Mild |
| | Oral (Rat) LD50: 20000 mg/kg[2] | Eye: no adverse effect observed (not irritating)[1] |
| | | Skin (Human - child): 30%/96H(continuous) - Moderate |
| | | Skin (Human - man): 10%/2D |
| | | Skin (Human - woman): 30%/96H - Mild |
| | | Skin (Human): 104mg/3D (intermittent) - Moderate |
| | | Skin (Human): 20% |
| | | Skin (Human): 500mg/7D - Mild |
| | | Skin: no adverse effect observed (not irritating)[1] |

| **alcohols C11-14-iso-, C13-rich, ethoxylated** | **TOXICITY** | **IRRITATION** |
|---|---|---|
| | Oral (Rat) LD50: 500 mg/kg[2] | Not Available |

**Continued...**

| | | |
|---|---|---|
| **2-butylaminoethanol** | **TOXICITY** | **IRRITATION** |
| | Oral (Rat) LD50: 1150 mg/kg[2] | Eye: adverse effect observed (irreversible damage)[1] |
| | | Skin: adverse effect observed (irritating)[1] |
| **ammonium hydroxide** | **TOXICITY** | **IRRITATION** |
| | Inhalation (Rat) LC50: 2000 ppm4h[2] | Eye (Rodent - rabbit): 1mg/30S - Severe |
| | Oral (Rat) LD50: 350 mg/kg[2] | Eye (Rodent - rabbit): 250ug - Severe |
| | | Eye (Rodent - rabbit): 44ug - Severe |
| **zinc oxide** | **TOXICITY** | **IRRITATION** |
| | dermal (rat) LD50: >2000 mg/kg[1] | Eye (Rodent - rabbit): 500mg/24H - Mild |
| | Inhalation (Rat) LC50: >1.79 mg/l4h[1] | Eye: no adverse effect observed (not irritating)[1] |
| | Oral (Rat) LD50: >5000 mg/kg[1] | Skin (Human): 300ug/3D (intermittent) - Mild |
| | | Skin (Rodent - rabbit): 500mg/24H - Mild |
| | | Skin: no adverse effect observed (not irritating)[1] |

| | |
|---|---|
| ***Legend:*** | ***1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*** |

| | |
|---|---|
| **C.I. PIGMENT WHITE 6** | Substance has been investigated as a mutagen, tumorigen and primary irritant.<br>Exposure to titanium dioxide is via inhalation, swallowing or skin contact. When inhaled, it may deposit in lung tissue and lymph nodes causing dysfunction of the lungs and immune system. Absorption by the stomach and intestines depends on the size of the particle. It penetrated only the outermost layer of the skin, suggesting that healthy skin may be an effective barrier. There is no substantive data on genetic damage, though cases have been reported in experimental animals. Studies have differing conclusions on its cancer-causing potential.<br>The substance is classified by IARC as Group 3:<br>**NOT** classifiable as to its carcinogenicity to humans.<br>Evidence of carcinogenicity may be inadequate or limited in animal testing. |
| **CALCIUM CARBONATE** | No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects. |
| **PROPYLENE GLYCOL** | The acute oral toxicity of propylene glycol is very low; large amounts are needed to cause perceptible health damage in humans. Serious toxicity generally occurs only at blood concentrations over 1 g/L, which requires extremely high intake over a relatively short period of time; this is nearly impossible with consuming foods or supplements which contain 1g/kg of PG at most. Poisonings are usually due to injection through a vein or accidental swallowing of large amounts by children. The potential for long-term oral toxicity is also low.<br>Prolonged contact with propylene glycol is essentially non-irritating to the skin. Undiluted propylene glycol is minimally irritating to the eye, and can produce a slight, temporary inflammation of the conjunctiva. Exposure to mists may cause irritation of both the eye and the upper airway. Inhalation of propylene glycol vapours may be irritating to some individuals. It is therefore recommended that propylene glycol not be used in applications where inhalation exposure or human eye contact with the spray mists of these materials is likely, such as fogs for theatrical productions or antifreeze solutions for emergency eye wash stations.<br>Propylene glycol is metabolized in humans to pyruvic acid, acetic acid, lactic acid and propionaldehyde; the last of which is potentially hazardous.<br>Propylene glycol show s no evidence of causing cancer or genetic toxicity.<br>Research has suggested that individuals who cannot tolerate propylene glycol probably experience a special form of irritation, but they only rarely develop allergic contact dermatitis. Other investigators believe that the incidence of allergic contact dermatitis in people exposed to propylene glycol may be greater than 2% in patients with eczema.<br>One study strongly suggests a connection between airborne concentrations of propylene glycol in houses and development of asthma and allergic reactions, such as inflammation of the nose and hives, in children.<br>Another study suggested that the concentration of PGEs (propylene glycol and glycol ethers) in indoor air is linked to increased risk of developing numerous respiratory and immune disorders in children, including asthma, hay fever, eczema and allergies, with increased risk ranging from 50% to 180%. This concentration has been linked to use of water-based paints and water-based system cleansers.<br>Patients with bladder inflammation and vulvodynia (chronic pain of the vulva) may be especially sensitive to propylene glycol. Women suffering with yeast infections may notice that some over the counter creams cause intense burning. Post-menopausal women who require the use of an oestrogen cream may notice that creams made with propylene glycol often cause extremely uncomfortable burning along the vulva and around the anus. Some electronic cigarette users who inhale propylene glycol vapour may experience dryness of the throat or shortness of breath.<br>Adverse responses to administration of drugs which use propylene glycol as an incipient have been seen in a number of people especially at high doses. These include low blood pressure, slow heart rate, ECG abnormalities, heartbeat irregularities, lactic acidosis, breakdown of red cells and cardiac arrest. |
| **ALCOHOLS C11-14-ISO-, C13-RICH, ETHOXYLATED** | * Ashland SDS<br>Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products.<br>Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitisers. The oxidization products also cause irritation.<br>Humans have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents and other cleaning products. Exposure to these chemicals can occur through swallowing, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that relatively high volumes would have to occur to produce any toxic response. No death due to poisoning with alcohol ethoxylates has ever been reported. Studies show that alcohol ethoxylates have low toxicity through swallowing and skin contact.<br>Animal studies show these chemicals may produce gastrointestinal irritation, stomach ulcers, hair standing up, diarrhea and lethargy. Slight to severe irritation occurred when undiluted alcohol ethyoxylates were applied to the skin and eyes of animals. These chemicals show no indication of genetic toxicity or potential to cause mutations and cancers. Toxicity is thought to be substantially lower than that of nonylphenol ethoxylates.<br>Some of the oxidation products of this group of substances may have sensitizing properties.<br>As they cause less irritation, nonionic surfactants are often preferred to ionic surfactants in topical products. However, their tendency to auto-oxidise also increases their irritation. Due to their irritating effect it is difficult to diagnose allergic contact dermatitis (ACD) by patch testing.<br>Both laboratory and animal testing has shown that there is no evidence for alcohol ethoxylates (AEs) causing genetic damage, mutations or cancer. No adverse reproductive or developmental effects were observed.<br>Tri-ethylene glycol ethers undergo enzymatic oxidation to toxic alkoxy acids. They may irritate the skin and the eyes. At high oral doses, they may cause depressed reflexes, flaccid muscle tone, breathing difficulty and coma. Death may result in experimental animal. However, repeated exposure may cause dose dependent damage to the kidneys as well as reproductive and developmental defects.<br>The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function. |
| **2-BUTYLAMINOETHANOL** | Respiratory depression, diarrhoea recorded. |

**Continued...**

| | |
|---|---|
| | The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration. |
| **CALCIUM CARBONATE & ALCOHOLS C11-14-ISO-, C13-RICH, ETHOXYLATED & 2-BUTYLAMINOETHANOL & AMMONIUM HYDROXIDE** | Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.<br>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. |
| **CALCIUM CARBONATE & PROPYLENE GLYCOL & ALCOHOLS C11-14-ISO-, C13-RICH, ETHOXYLATED & ZINC OXIDE** | The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. |

| | | | |
|---|---|---|---|
| **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**

**Aalto WB Enamel Base Range**

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

**C.I. Pigment White 6**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| BCF | 1008h | Fish | <1.1-9.6 | 7 |
| EC50 | 48h | Crustacea | 1.9mg/l | 2 |
| EC50 | 72h | Algae or other aquatic plants | 3.75-7.58mg/l | 4 |
| EC50 | 96h | Algae or other aquatic plants | 179.05mg/l | 2 |
| NOEC(ECx) | 672h | Fish | >=0.004mg/L | 2 |
| LC50 | 96h | Fish | 1.85-3.06mg/l | 4 |

**calcium carbonate**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| EC50 | 72h | Algae or other aquatic plants | >14mg/l | 2 |
| NOEC(ECx) | 1h | Fish | 4-320mg/l | 4 |
| LC50 | 96h | Fish | >165200mg/L | 4 |

**propylene glycol**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| LC50 | 96h | Fish | 710mg/L | 4 |
| EC50 | 48h | Crustacea | >114.4mg/L | 4 |
| EC50 | 72h | Algae or other aquatic plants | 19300mg/l | 2 |
| NOEC(ECx) | 336h | Algae or other aquatic plants | <5300mg/l | 1 |
| EC50 | 96h | Algae or other aquatic plants | 19000mg/l | 2 |

**alcohols C11-14-iso-, C13-rich, ethoxylated**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| LC50 | 96h | Fish | 1-10mg/l | Not Available |

**2-butylaminoethanol**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| EC50 | 48h | Crustacea | 180mg/l | 2 |
| EC50 | 72h | Algae or other aquatic plants | 5.2mg/l | 2 |
| NOEC(ECx) | 72h | Algae or other aquatic plants | 0.32mg/l | 2 |
| LC50 | 96h | Fish | ~100mg/l | 2 |

**ammonium hydroxide**

| Endpoint | Test Duration (hr) | Species | Value | Source |
|---|---|---|---|---|
| EC50(ECx) | 96h | Crustacea | 0.83mg/L | 5 |
| LC50 | 96h | Fish | 33.3mg/L | 4 |

**Continued...**

| | | | | | |
|---|---|---|---|---|---|
| **zinc oxide** | **Endpoint** | **Test Duration (hr)** | **Species** | **Value** | **Source** |
| | BCF | 1344h | Fish | 19-110 | 7 |
| | EC50 | 48h | Crustacea | 0.105mg/L | 2 |
| | EC50 | 72h | Algae or other aquatic plants | 0.022mg/L | 2 |
| | ErC50 | 72h | Algae or other aquatic plants | 0.62mg/l | 2 |
| | EC50 | 96h | Algae or other aquatic plants | 0.042mg/L | 2 |
| | EC10(ECx) | 168h | Algae or other aquatic plants | 0.003mg/L | 2 |
| | LC50 | 96h | Fish | 0.102mg/L | 2 |
| ***Legend:*** | ***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** discharge into sewer or waterways.

### Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|---|---|---|
| C.I. Pigment White 6 | HIGH | HIGH |
| propylene glycol | LOW | LOW |
| 2-butylaminoethanol | LOW | LOW |

### Bioaccumulative potential

| Ingredient | Bioaccumulation |
|---|---|
| C.I. Pigment White 6 | LOW (BCF = 10) |
| propylene glycol | LOW (BCF = 1) |
| alcohols C11-14-iso-, C13-rich, ethoxylated | HIGH (LogKOW = 6.3) |
| 2-butylaminoethanol | LOW (LogKOW = 0.33) |
| ammonium hydroxide | LOW (LogKOW = -2.66) |
| zinc oxide | LOW (BCF = 217) |

### Mobility in soil

| Ingredient | Mobility |
|---|---|
| C.I. Pigment White 6 | LOW (Log KOC = 23.74) |
| propylene glycol | HIGH (Log KOC = 1) |
| 2-butylaminoethanol | LOW (Log KOC = 8.651) |

## SECTION 13 Disposal considerations

### Waste treatment methods

| | |
|---|---|
| **Product / Packaging disposal** | ▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains.<br>▸ It may be necessary to collect all wash water for treatment before disposal.<br>▸ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.<br>▸ Where in doubt contact the responsible authority.<br>▸ Recycle wherever possible.<br>▸ 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.<br>▸ 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).<br>▸ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed. |

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

### Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.
The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.
Only dispose to the environment if a tolerable exposure limit has been set for the substance.
Only deposit the hazardous substance into or onto a landfill or sewage facility or incinerator, where the hazardous substance can be handled and treated appropriately.

## SECTION 14 Transport information

### Labels Required

| | |
|---|---|
| **Marine Pollutant** | NO |
| **HAZCHEM** | Not Applicable |

### Land transport (UN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

**Continued...**

**Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

**14.7. Maritime transport in bulk according to IMO instruments**

**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 |
|---|---|
| C.I. Pigment White 6 | Not Available |
| calcium carbonate | Not Available |
| propylene glycol | Not Available |
| alcohols C11-14-iso-, C13-rich, ethoxylated | Not Available |
| 2-butylaminoethanol | Not Available |
| ammonium hydroxide | Not Available |
| zinc oxide | Not Available |

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

| Product name | Ship Type |
|---|---|
| C.I. Pigment White 6 | Not Available |
| calcium carbonate | Not Available |
| propylene glycol | Not Available |
| alcohols C11-14-iso-, C13-rich, ethoxylated | Not Available |
| 2-butylaminoethanol | Not Available |
| ammonium hydroxide | Not Available |
| zinc oxide | Not Available |

## SECTION 15 Regulatory information

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

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

| HSR Number | Group Standard |
|---|---|
| HSR002670 | Surface Coatings and Colourants Subsidiary Hazard Group Standard 2020 |

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

**C.I. Pigment White 6 is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

**calcium carbonate is found on the following regulatory lists**

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)

**propylene glycol is found on the following regulatory lists**

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

**alcohols C11-14-iso-, C13-rich, ethoxylated is found on the following regulatory lists**

New Zealand Inventory of Chemicals (NZIoC)
New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits for dangerous goods

**2-butylaminoethanol is found on the following regulatory lists**

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

**ammonium hydroxide is found on the following regulatory lists**

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

**zinc oxide is found on the following regulatory lists**

**Continued...**

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits for dangerous goods
New Zealand Workplace Exposure Standards (WES)

### Additional Regulatory Information

Not Applicable

### Hazardous Substance Location

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

| Hazard Class | Quantities |
|---|---|
| Not Applicable | Not Applicable |

### Certified Handler

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

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

Refer Group Standards for further information

### Maximum quantities of certain hazardous substances permitted on passenger service vehicles

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

| Hazard Class | Gas (aggregate water capacity in mL) | Liquid (L) | Solid (kg) | Maximum quantity per package for each classification |
|---|---|---|---|---|
| Not Applicable | Not Applicable | Not Applicable | Not Applicable | Not Applicable |

### Tracking Requirements

Not Applicable

### National Inventory Status

| National Inventory | Status |
|---|---|
| Australia - AIIC / Australia Non-Industrial Use | Yes |
| Canada - DSL | Yes |
| Canada - NDSL | No (C.I. Pigment White 6; propylene glycol; alcohols C11-14-iso-, C13-rich, ethoxylated; 2-butylaminoethanol; ammonium hydroxide) |
| China - IECSC | Yes |
| Europe - EINEC / ELINCS / NLP | No (alcohols C11-14-iso-, C13-rich, ethoxylated) |
| 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 | No (2-butylaminoethanol) |
| Vietnam - NCI | Yes |
| Russia - FBEPH | Yes |
| ***Legend:*** | ***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

| | |
|---|---|
| **Revision Date** | 13/08/2025 |
| **Initial Date** | 13/08/2025 |

### SDS Version Summary

| Version | Date of Update | Sections Updated |
|---|---|---|
| 2.1 | 13/08/2025 | Physical and chemical properties - Appearance, Composition / information on ingredients - Ingredients |

### 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

**Continued...**

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

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