Section 1. Identification

Product code : T4321/500ML
Product name : T4321 HC YELLOW
Product type : Liquid.

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

Supplier's details : PPG INDUSTRIES NEW ZEALAND LTD
5 MONAHER ROAD, MT WELLINGTON,
AUCLAND
www.ppgnz.co.nz

Telephone Numbers:
09 573 1620, 0800 659378
021 940 920 (24 Hours)

Emergency telephone number (with hours of operation) : POISON CENTRE: 0800 764766 (24 hours)
e-mail address of person responsible for this SDS : ehsnz@ppg.com

Section 2. Hazards identification

HSNO Classification : 6.3 - SKIN IRRITATION - Category B
9.3 - TERRESTRIAL VERTEBRATE ECOTOXICITY - Category C
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 6.3%
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 9.9%

This material is classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 and has been classified according to the Hazardous Substances (Classifications) Regulations 2001.

This material is not classified as a dangerous good according to criteria in New Zealand Standard 5433:2007 Transport of Dangerous Goods on Land.

GHS label elements

Signal word : Warning
Hazard statements : Causes mild skin irritation.
                   Harmful to terrestrial vertebrates.

Precautionary statements

Prevention : Avoid release to the environment.
Response : If skin irritation occurs: Get medical advice/attention.
Storage : Not applicable.
Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.
Section 2. Hazards identification

Symbol :
Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
CAS number/other identifiers
Product code : T4321/500ML

<table>
<thead>
<tr>
<th>Hazardous ingredients</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylic polymers</td>
<td>0 - 10</td>
<td>9065-11-6</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>0 - 10</td>
<td>111-76-2</td>
</tr>
<tr>
<td>iron hydroxide oxide yellow</td>
<td>0 - 10</td>
<td>51274-00-1</td>
</tr>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>0 - 10</td>
<td>5131-66-8</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes mild skin irritation.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eyes : Adverse symptoms may include the following: pain or irritation, watering, redness.
Inhalation : No specific data.
Skin : Adverse symptoms may include the following: irritation, redness.
Ingestion : No specific data.
Section 4. First-aid measures

**Indication of immediate medical attention and special treatment needed, if necessary**

**Specific treatments**: Not available.

**Notes to physician**: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Protection of first-aiders**: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable**: Use an extinguishing agent suitable for the surrounding fire.

**Not suitable**: None known.

**Specific hazards arising from the chemical**: A fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products**: Decomposition products may include the following materials: carbon oxides

**Hazchem code**: Not available.

**Special precautions for fire-fighters**: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spill material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Environmental precautions**: Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods and material for containment and cleaning up**

**Small spill**: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill**: Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spill product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
Section 7. Handling and storage

Precautions for safe handling: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage, including any incompatibilities: Storage temperature: 5 to 35°C (41 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylic polymers</td>
<td>ACGIH TLV (United States, 1/2012).</td>
</tr>
<tr>
<td></td>
<td>TWA: 10 mg/m³, (Dusts and mists) Form:</td>
</tr>
<tr>
<td></td>
<td>TWA: 3 mg/m³, (Dusts and mists) Form:</td>
</tr>
<tr>
<td></td>
<td>Respirable fraction</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>NZ OSH (New Zealand, 2/2013). Absorbed</td>
</tr>
<tr>
<td></td>
<td>through skin.</td>
</tr>
<tr>
<td></td>
<td>WES-TWA: 121 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>WES-TWA: 25 ppm 8 hours.</td>
</tr>
<tr>
<td>iron hydroxide oxide yellow</td>
<td>EH40/2005 WELs (United Kingdom (UK),</td>
</tr>
<tr>
<td></td>
<td>STEL: 10 mg/m³, (as Fe) 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>Form: Fume</td>
</tr>
<tr>
<td></td>
<td>TWA: 5 mg/m³, (as Fe) 8 hours. Form:</td>
</tr>
<tr>
<td></td>
<td>Fume</td>
</tr>
</tbody>
</table>

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures
Section 8. Exposure controls/personal protection

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves: For prolonged or repeated handling, use the following type of gloves:

Recommended: butyl rubber

Eye protection: Safety glasses with side shields.

Skin protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 9. Physical and chemical properties

Appearance

Physical state: Liquid.

Colour: Yellow.

Odour: Faint odour.

Odour threshold: Not available.

pH: Not available.

Melting point: Not available.

Boiling point: >37.78°C (>100°F)

Flash point: Closed cup: 100°C (212°F) [Product does not sustain combustion.]

Burning time: Not applicable.

Burning rate: Not applicable.

Material supports combustion: No.

Flammability (solid, gas): Not available.

Lower and upper explosive (flammable) limits: Not available.

Vapour pressure: Not available.

Relative density: 1.05

Bulk Density (g/cm³): 0

Solubility: Partially soluble in the following materials: cold water.
Section 9. Physical and chemical properties

Solubility in water at room temperature (g/l): Not available.
Partition coefficient: n-octanol/water: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.

Viscosity:
- Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
- 30 - <40 s (ISO 6mm)

Section 10. Stability and reactivity

Stability: Stable under recommended storage and handling conditions (see Section 7).
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: No specific data.
Incompatible materials: Reactive or incompatible with the following materials:
- oxidizing materials
- strong acids
- strong alkalis

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerisation: Under normal conditions of storage and use, hazardous polymerisation will not occur.

Section 11. Toxicological information

Information on the likely routes of exposure
- Inhalation: No known significant effects or critical hazards.
- Ingestion: No known significant effects or critical hazards.
- Skin contact: Causes mild skin irritation.
- Eye contact: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics
- Inhalation: No specific data.
- Ingestion: No specific data.
- Skin contact: Adverse symptoms may include the following:
  - irritation
  - redness
- Eye contact: Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Acute toxicity
Section 11. Toxicological information

### Chronic toxicity

- **Mutagenicity**
  - Conclusion/Summary: No known significant effects or critical hazards.

- **Teratogenicity**
  - Conclusion/Summary: No known significant effects or critical hazards.

- **Reproductive toxicity**
  - Conclusion/Summary: No known significant effects or critical hazards.

#### Irritation/Corrosion

- **Skin**: There are no data available on the mixture itself.
- **Eyes**: There are no data available on the mixture itself.
- **Respiratory**: There are no data available on the mixture itself.

#### Sensitisation

- **Skin**: There are no data available on the mixture itself.
- **Respiratory**: There are no data available on the mixture itself.

### Potential chronic health effects

- **General**: No known significant effects or critical hazards.
- **Carcinogenicity**: No known significant effects or critical hazards.
- **Mutagenicity**: No known significant effects or critical hazards.
- **Teratogenicity**: No known significant effects or critical hazards.
- **Developmental effects**: No known significant effects or critical hazards.
- **Fertility effects**: No known significant effects or critical hazards.

### Chronic toxicity

- Not available.

#### Carcinogenicity

- Conclusion/Summary: There are no data available on the mixture itself.

#### Mutagenicity

- Conclusion/Summary: There are no data available on the mixture itself.

#### Teratogenicity

- Conclusion/Summary: There are no data available on the mixture itself.

#### Reproductive toxicity

- Conclusion/Summary: There are no data available on the mixture itself.

- Not available.

### Aspiration hazard

- Not available.

### Numerical measures of toxicity

#### Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>5771.1 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>5490.2 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapours)</td>
<td>213.3 mg/l</td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains 2,4,7,9-tetramethyldec-5-yn-4,7-diol. May produce an allergic reaction.

Section 12. Ecological information

Ecotoxicity: No known significant effects or critical hazards.

Aquatic and terrestrial toxicity

Not available.

Persistence/degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>0.81</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>1.15</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>): Not available.

Other adverse effects: No known significant effects or critical hazards.

Do not allow to enter drains or watercourses.

Section 13. Disposal considerations

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

Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Not suitable: Do not allow to enter drains or watercourses.

The classification of the product may meet the criteria for a hazardous waste. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures
14. Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>NZ</th>
<th>ADG</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport within user’s premises:</td>
<td>always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional information</td>
<td>NZ : None identified.</td>
<td>ADG : None identified.</td>
<td>IMDG : Not applicable.</td>
<td>IATA : Not applicable.</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 15. Regulatory information

| New Zealand Inventory of Chemicals (NZIoC) : | All components are listed or exempted. |
| HSNO Approval Number : | HSR002670 Subsidiary Hazard |
| Emergency Management Regulations : | Level 1: Not applicable. |
| Level 2: MSDS required when any amount is present in a workplace. |
| Level 3: Emergency Response Plans and Secondary Containment required when 10000L is stored. |
| Ecotoxic Signage required when 10000L is present in a workplace. |
| Approved Handler : | Not applicable. |

Section 16. Other information

| Date of issue : | 10 November 2015 |
| Indicates information that has changed from previously issued version. |
| Key to abbreviations : | STEL = Short Term Exposure Limit |
| TWA = Time-Weighted Average |
| WES = Work Exposure Standard |
Section 16. Other information

References : Not available.
Organisation that prepared the MSDS : EHS

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.