



INTRODUCTION

Wattyl's Tank Lining Resistance Guide provides a list of chemicals and their suitability in contact with Epiname[®] TL710, Galvit[®] ES600 and Galvit[®] ES510.

GUIDE TO DATA

| | |
|---------------------|---|
| R | Recommended cargo |
| R, note | Recommended, but refer to specific note (below) |
| NR | Not recommended |
| Maximum Temperature | Recommendations are based on a maximum storage temperature of 35°C unless otherwise listed. |

NOTES

- 1 Product may cause discolouration of the coating. This will not detract from the performance of the coating.
- 2 Suitable for storage providing pH is between 4 - 11. After tank cleaning diluted solutions of molasses should be removed within 24 hours or neutralised by an alkaline tank cleaning product to a pH between 5 - 9.
- 3 Suitable for storage providing pH is between 5.5 - 9.0.
- 4 Animal or vegetable oils contain varying amounts of free fatty acids depending on origin and age. Contact with water at elevated temperature will result in hydrolysis and increased levels of fatty acids. The acid value determined in accordance with ASTM D-1980 should not exceed 20. In addition the allowable water content is 1% maximum. No free mineral acid content is permitted.
- 5 This is a generic name. Most of these products can be stored however it should be established that no notes are included under the specific chemical name elsewhere in the list.
- 6 Esters can hydrolyse in the presence of moisture to form acidic compounds that may attack the coating. Such products must therefore be free from moisture and stored in completely dry tanks. Water content should not exceed 0.02%.
- 7 Approved to AS/NSZ4020:2005, minimum tank size shall be 180 litres. Fully cured coating must be cleaned before putting into service. Tank cleaning procedure shall be performed in accordance with local council or water authority procedures. If no such procedures exist, the following procedure should be used. Clean tank by high pressure water washing with potable water. Then fill tank with potable water, allow to stand for 24 hours, drain, then perform a final high pressure water wash with potable water. Maximum water temperature for washing shall be 40°C.
- 8 Unleaded petrol may contain considerable amounts of oxygenated solvents or additives. The coating system is only suitable for contact with grades of ULP and PULP not containing ethanol and complying with the Australian Fuel Standard (Petrol) Determination 2001. When blending fuels the additives must be added to the petrol with thorough mixing to avoid high localised concentrations that could be detrimental to the coating system.
- 9 Crude oils, fuel oils and other crude products may contain variable amounts of acidic materials and water detrimental to ethyl silicate zinc rich coatings. The acid value should be determined prior to storage. Maximum acceptable neutralisation is 0.4 (ASTM D-664). The pH of any water present must be within the range 5.5 - 9.0

For information on chemicals not listed, please contact Wattyl Technical Service for advice on 132 101 (Australia), 0800 735 551 (New Zealand).



TANK LINING RESISTANCE GUIDE

I-19

| Chemical | Epiname TL710 | Max Temp °C | Galvit ES600/ Galvit ES510 | Max Temp °C |
|-------------------------------------|---------------|-------------|-------------------------------|-------------|
| Acetic Acid | NR | | NR | |
| Acetone | NR | | R | |
| Alcohol, dehydrated | NR | | R, note 3 | |
| Alcohol, industrial | NR | | R, note 3 | |
| Alcohols, (C4 - C16) | R | | R | |
| Aliphatic Hydrocarbons | R, note 5 | | R, note 5 | |
| Ammonia Gas | NR | | NR | |
| Ammonia Aqueous (0 - 28%) | NR | | NR | |
| Ammonium Hydroxide (0 - 28%) | NR | | NR | |
| Ammonium Nitrate Solution (0 - 95%) | R | | NR | |
| Ammonium Phosphate (40%) | R | | NR | |
| Ammonium Sulphate (50%) | R | | NR | |
| Amyl Alcohol (all isomers) | R | | R | |
| Anti-freeze (Glycol based) | R, note 5 | | R, note 3, 5 | |
| Aromatic Hydrocarbons | R, note 5 | | R | |
| Aviation Fuel | NR | | NR | |
| Aviation Kerosene | NR | | NR | |
| Benzene | NR | | R | |
| Benzyl Alcohol | NR | | R | |
| Black Oils | R, note 1 | 60 | R, note 1 | 60 |
| Brake Fluid (Glycol Based) | R | | | |
| Brine | R | | NR | |
| Butanol | R | | R | |
| Butanol normal | R | | R | |
| Butanol, 1 | R | | R | |
| Butanol, 2 | R | | R | |
| Butyl Acetate, normal | NR | | R, note 6 | |
| Butyl Acetate, sec | NR | | R, note 6 | |
| Butyl Acrylate | NR | | NR | |
| Butyl Alcohol | R | | R | |
| Butyl Alcohol; iso, normal, sec. | R | | R | |
| Butyl Benzyl Phthalate | R | | R | |
| Butyl Glycol | NR | | R | |
| Butyl Glycol Acetate | NR | | R, note 6 | |
| Calcium Chloride (Saturated) | R | | NR | |
| Calcium Hydroxide (0 - 50%) | R | | NR | |
| Carbon Dioxide Gas (Dry) | R | | R | |
| Carbon Tetrachloride | NR | | R, note 6 | |
| Carbonic Acid 10% | R | | NR | |
| Castor Oil | R, note 4 | | R, note 4 | |
| Castor Oil Fatty Acid | NR | | NR | |
| Caustic Potash (0 - 29%) | NR | | NR | |
| Caustic Potash (30 - 49%) | R | 40 | NR | |
| Caustic Potash (50%) | R | 60 | NR | |
| Caustic Soda (0 - 29%) | NR | | NR | |
| Caustic Soda (30 - 49%) | R | 40 | NR | |
| Caustic Soda (50 - 75%) | R | 60 | NR | |
| Cement (Dry) | R | | R | |
| Chlorinated Paraffins | R | | R | |
| Citric Acid Solution (0 - 70%) | R, note 1 | | NR | |
| Coal Tar | R, note 1, 3 | 70 | R, note 1, 3 | 70 |
| Coal Tar Oil (Creosote) | NR | | NR | |



TANK LINING RESISTANCE GUIDE

I-19

| Chemical | Epiname TL710 | Max Temp °C | Galvit ES600/ Galvit ES510 | Max Temp °C |
|---|---------------|-------------|-------------------------------|-------------|
| Coconut Oil | R, note 4 | 60 | NR | |
| Coconut Oil Fatty Acid | NR | | NR | |
| Cresol | NR | | NR | |
| Cresosote (Coal Tar Oil) | NR | | NR | |
| Crude Naptha | R | | R, note 9 | |
| Crude Naptha Petroleum | R | | R, note 9 | |
| Crude Oil | R, note 1 | 70 | R, note 1, 9 | 70 |
| Crude Oil (Low Sulphur) | R, note 1 | 70 | NR | |
| Crude Oil (High Sulphur) | R, note 1 | 70 | NR | |
| Crude Petroleum | R, note 1 | 70 | R, note 1, 9 | 70 |
| Cyclohexane | R | | R | |
| Cyclohexanol | R | | R | |
| Cyclohexanone | NR | | R | |
| DCO Fatty Acid | NR | | NR | |
| Demineralised Water | R | | R | |
| Denatured Alcohol | NR | | R | |
| Dialkyl (C7-C13) Phthalates | R, note 5, 6 | | R, note 5, 6 | |
| Dibutyl Ether | NR | | R | |
| Dibutyl Phthalate | R | | R | |
| Diesel Fuel | R | | R | |
| Diesel Oil | R | | R | |
| Diethyl Ether | NR | | R | |
| Diethylene Glycol | R | | NR | |
| Diethylene Glycol Ethers | NR | | R | |
| Diglycol | R | | NR | |
| Diisooctyl Phthalate | R | | R | |
| Dimethyl Ketone | NR | | R | |
| Diocetyl Phthalate | R | | R | |
| Dipropylene Glycol Ether | NR | | R, note 5 | |
| Dipropylene Glycol Methyl Ether | NR | | R | |
| Distilled Water | R | | R | |
| Drilling Oil | R | | R | |
| Engine Oil (Motor Oil) | R | 60 | NR | |
| Ethanol | NR | | R, note 3 | |
| Ether | NR | | R | |
| Ethyl Acetate | NR | | R, note 6 | |
| Ethyl Acrylate | NR | | R, note 5 | |
| Ethyl Alcohol | NR | | R, note 3 | |
| Ethyl Diglycol Acetate | NR | | R, note 6 | |
| Ethylene Glycol | R | | R | |
| Ethylene Glycol Monobutyl Ether | NR | | R | |
| Fatty Acids (C10-C20) | NR | | NR | |
| Fatty Acids, Refined (Animal/Vegetable) | NR | | NR | |
| Fatty Alcohols | R, note 5 | | R | |
| Fertilizers | R, note 5 | | NR | |
| Fuel Oil | R | 60 | R | |
| Furfuryl Alcohol | NR | | R | |
| Glycerine | R | 60 | NR | |
| Hexane (all isomers) | R | | R | |
| Hexanol (all isomers) | R | | R | |
| Hydrocarbons Aliphatic | R, note5 | | R, note5 | |
| Hydrocarbons Aromatic | R, note5 | | R, note5 | |



TANK LINING RESISTANCE GUIDE

I-19

| Chemical | Epiname TL710 | Max Temp °C | Galvit ES600/ Galvit ES510 | Max Temp °C |
|-------------------------------|---------------|-------------|-------------------------------|-------------|
| Hydrochloric Acid & Solutions | NR | | NR | |
| Hydrogen Sulphide (Solutions) | R | | NR | |
| Hypochloride Bleach | NR | | NR | |
| Isobutanol | R | | R | |
| Isobutyl Acetate | NR | | R, note 6 | |
| Isobutyl Alcohol | R | | R | |
| Isopropanol | NR | | R | |
| Isopropyl Acetate | NR | | R, note 6 | |
| Isopropyl Glycol Acetate | NR | | R, note 6 | |
| Jet Fuel | NR | | NR | |
| Jet Fuel Additives | NR | | NR | |
| Kerosene | R | | R | |
| Lactic Acid | NR | | NR | |
| Lactic Acid (5% - 20%) | R | | NR | |
| Lecithin | R | | NR | |
| Lime | R | | NR | |
| Lime Slaked | R | | NR | |
| Linseed Oil | R, note 4 | 60 | R, note 4 | 60 |
| Linseed Oil Fatty Acids | NR | | NR | |
| Lube Oil | R, note 5 | | R, note 5 | |
| Lubricating Oils | R, note 5 | | R, note 5 | |
| MEK | NR | | R | |
| Methane | R | | R | |
| Methanol | NR | | R | |
| Methyl Amyl Ketone | NR | | R | |
| Methyl Butyl Ketone | NR | | R | |
| Methyl Ethyl Ketone | NR | | R | |
| Methyl Isoamyl Ketone | NR | | R | |
| Methyl Isobutyl Ketone | NR | | R | |
| Methylated Spirits | NR | | R, note 3 | |
| MIAC | NR | | R | |
| MIBK | NR | | R | |
| Mineral Oils | R | 70 | R | 70 |
| Mineral Spirits | R, note 5 | | R, note 5 | |
| Mineral Turpentine | R | | R | |
| Molasses | R, note 2 | 50 | NR | |
| Naphtha Refined Aromatic | R | | R | |
| Nitric Acid Solutions | NR | | NR | |
| Nonyl Phenol | R | | R | |
| Octanol (All Isomers) | R | | R | |
| Oils Mineral | R | 70 | R | 70 |
| Oils Refined Coconut | R, note 4 | 60 | R, note 4 | 60 |
| Oils Refined Cottonseed | R, note 4 | 40 | R, note 4 | 60 |
| Oils Refined Linseed | R, note 4 | 60 | R, note 4 | 60 |
| Oils Refined Oiticica | R, note 4 | 60 | R, note 4 | 60 |
| Oils Refined Palm | R, note 4 | 60 | R, note 4 | 60 |
| Oils Refined Safflower | R, note 4 | 50 | R, note 4 | 50 |
| Oils Refined Soya | R, note 4 | 50 | NR | |
| Oils Refined Tung | R, note 4 | 60 | R, note 4 | 60 |
| Oils Vegetable | R, note 5 | | R, note 5 | |
| Oiticica Oil | R, note 4 | 60 | R, note 4 | 60 |
| Ortho Cresol | NR | | NR | |



TANK LINING RESISTANCE GUIDE

I-19

| Chemical | Epiname TL710 | Max Temp °C | Galvit ES600/ Galvit ES510 | Max Temp °C |
|------------------------------------|---------------|-------------|-------------------------------|-------------|
| Pentanol, 1 | R | | R | |
| Pentyl Alcohol | R | | R | |
| Petrol Premium Grade Lead | R | | R | |
| Petrol Premium Grade Unleaded | R, note 8 | | R | |
| Petrol Regular Grade Lead | R | | R | |
| Petrol Regular Grade Unleaded | R, note 8 | | R | |
| Petrol Unleaded E10 (10% Ethanol) | NR | | R, note 3 | |
| Petroleum Refined | R, note 5 | | R | |
| Petroleum Solvents | R, note 5 | | R | |
| Phenol | NR | | NR | |
| Phosphoric Acid & Solutions | NR | | NR | |
| Phthalates | R, note 5 | | R, note 5 | |
| Polyethylene Glycol | R | | R | |
| Potassium Hydroxide (0 - 29%) | NR | | NR | |
| Potassium Hydroxide (30 - 49%) | R | 40 | NR | |
| Potassium Hydroxide (50%) | R | 60 | NR | |
| Propanol | NR | | R | |
| Propanone, 2- | NR | | R | |
| Propyl Acetate | NR | | R, note 6 | |
| Propyl Alcohol | NR | | R | |
| Refined Tar | R, note 1,3 | 70 | R, note 1,3 | 70 |
| Safflower Oil | R, note 4 | 50 | R, note 4 | 50 |
| Safflower Oil Fatty Acid | NR | | NR | |
| Salt Water | R | | NR | |
| Sea Water | R | | NR | |
| Sodium Hydroxide (0 - 29%) | NR | | NR | |
| Sodium Hydroxide (30 - 49%) | R | 40 | NR | |
| Sodium Hydroxide (50 - 75%) | R | 60 | NR | |
| Sodium Sulphate Solutions | R | | NR | |
| Sodium Sulfide Solutions (0 - 25%) | R | | NR | |
| Sodium Sulphite Solutions | NR | | NR | |
| Soya Oil | R, note 4 | 50 | R, note 4 | 50 |
| Soya Oil Fatty Acids | NR | | NR | |
| Styrene monomer | NR | | NR | |
| Sugar (Dry) | R | | R | |
| Sugar Solution | R, note 2 | 50 | NR | |
| Sugar Syrup | R, note 2 | 50 | NR | |
| Sulphuric Acid & Solutions | NR | | NR | |
| Sunflower Oil Fatty Acid | NR | | NR | |
| Sweet Oil | R, note 4 | 60 | NR | |
| Tall Oil (Crude or Refined) | NR | | NR | |
| Tetrachloromethane | NR | | R, note 6 | |
| Toluene | R | | R | |
| Trichloroethane | NR | | R, note 6 | |
| Trichloroethane, 1,1,1- | NR | | R, note 6 | |
| Trichloroethane, 1,1,2- | NR | | R, note 6 | |
| Tung Oil | R, note 4 | 60 | R, note 4 | 50 |
| Urea | R | | NR | |
| Vegetable Oils | R, note 5 | | R, note 5 | |
| Vinegar | NR | | NR | |
| Vinyl Acetate | NR | | NR | |
| Water, deionised | R | | R | |



| Chemical | Epiname TL710 | Max Temp °C | Galvit ES600/ Galvit ES510 | Max Temp °C |
|----------------------|---------------|-------------|-------------------------------|-------------|
| Water, distilled | R | | R | |
| Water, drinking | R, note 7 | | NR | |
| Water, potable | R, note 7 | | NR | |
| Water, salt | R | | NR | |
| Water, sea | R | | NR | |
| Water, tap | R | | R | |
| White Spirits | R | | R | |
| Wine | NR | | NR | |
| Xylene (all isomers) | R | | R | |

For the most up to date information contact Watty Customer Service Hotline or visit the Watty Website.

| | | |
|---------------------------------|---|---|
| | Australia | New Zealand |
| CUSTOMER SERVICE HOTLINE | 132 101 | 0800 735 551 |
| WEBSITE | http://www.watty.com.au | http://www.watty.co.nz |

Watty, Epiname and Galvit are registered trademarks of Watty Australia Pty Ltd.

1. This information is important to ensure that the listed Watty product(s) perform according to the stated application and uses and must be followed to meet Watty's warranties express and implied. Watty advises that you (a) review the Technical Data Sheets (TDS) and Material Safety Data Sheets (MSDS) before you use or handle the product; (b) ensure that the product be used only in accordance with the information provided by Watty and the product(s) be transported, stored and handled in accordance with the information on the MSDS and relevant TDS; and (c) thoroughly test the product, using the recommended application method on a sample of intended substrate, before using the product. 2. While Watty endeavours to update this information and maintain the accuracy and currency of its contents, Watty does not warrant that the information provided is current when the product is used or is wholly comprehensive. 3. For all product and non-product related information, Watty recommends that you conduct such additional investigations as may be necessary to satisfy yourself of the accuracy, currency and comprehensiveness of the information on which you rely in using and handling the product. If you require further information please contact your nearest Watty office before using the product(s). 4. To the full extent permitted by law, Watty's liability for breach of a condition or warranty implied into the contract for sale between Watty and you by law is limited at Watty's election to: (a) the replacement of the product; or (b) payment of the cost of replacing the product. If coating rectification is required Watty Technical Services shall be contacted prior to commencement.

WATTYL AUSTRALIA PTY LTD (ABN 40 000 035 914)