



# Dy-Mark Zinc Guard White Primer

## Dy-Mark

Chemwatch: 41-6917

Version No: 10.1

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

Chemwatch Hazard Alert Code: 4

Initial Date: 28/04/2014

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Print Date: 04/02/2026

S.GHS.AUS.EN.E

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

### Product Identifier

|                               |                                 |
|-------------------------------|---------------------------------|
| Product name                  | Dy-Mark Zinc Guard White Primer |
| Chemical Name                 | Not Applicable                  |
| Synonyms                      | 230732003                       |
| Proper shipping name          | AEROSOLS                        |
| 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 | Application is by spray atomisation from a hand held aerosol pack<br>Use according to manufacturer's directions. |
|--------------------------|------------------------------------------------------------------------------------------------------------------|

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

|                         |                                                                   |
|-------------------------|-------------------------------------------------------------------|
| Registered company name | Dy-Mark                                                           |
| Address                 | 89 Formation Street Wacol QLD 4076 Australia                      |
| Telephone               | +61 7 3327 3004                                                   |
| Fax                     | +61 7 3327 3009                                                   |
| Website                 | <a href="https://www.dymark.com.au">https://www.dymark.com.au</a> |
| Email                   | info@dymark.com.au                                                |

### Emergency telephone number

|                                     |                 |
|-------------------------------------|-----------------|
| Association / Organisation          | Dy-Mark         |
| Emergency telephone number(s)       | +61 7 3327 3099 |
| Other emergency telephone number(s) | Not Available   |

## SECTION 2 Hazards identification

### Classification of the substance or mixture

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

### Chemwatch Hazard Ratings

|              | Min | Max |
|--------------|-----|-----|
| Flammability | 4   |     |
| Toxicity     | 2   |     |
| Body Contact | 2   |     |
| Reactivity   | 1   |     |
| Chronic      | 2   |     |

0 = Minimum  
1 = Low  
2 = Moderate  
3 = High  
4 = Extreme

|                    |                                                                                                                                                                                                                                                                                                       |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Poisons Schedule   | Not Applicable                                                                                                                                                                                                                                                                                        |
| Classification [1] | Aerosols, Hazard Category 1, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Germ Cell Mutagenicity Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2 |
| Legend:            | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI                                                                                                                                                                   |

### Label elements

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

|             |        |
|-------------|--------|
| Signal word | Danger |
|-------------|--------|

|                     |                                                                          |
|---------------------|--------------------------------------------------------------------------|
| Hazard statement(s) |                                                                          |
| H222+H229           | Extremely flammable aerosol. Pressurized container: may burst if heated. |
| H315                | Causes skin irritation.                                                  |
| H319                | Causes serious eye irritation.                                           |
| H336                | May cause drowsiness or dizziness.                                       |
| H341                | Suspected of causing genetic defects.                                    |
| H411                | Toxic to aquatic life with long lasting effects.                         |
| AUH044              | Risk of explosion if heated under confinement.                           |

|                                       |                                                                                                |
|---------------------------------------|------------------------------------------------------------------------------------------------|
| Precautionary statement(s) Prevention |                                                                                                |
| P210                                  | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211                                  | Do not spray on an open flame or other ignition source.                                        |
| P251                                  | Do not pierce or burn, even after use.                                                         |
| P271                                  | Use only outdoors or in a well-ventilated area.                                                |
| P280                                  | Wear protective gloves, protective clothing, eye protection and face protection.               |
| P261                                  | Avoid breathing mist/vapours/spray.                                                            |
| P273                                  | Avoid release to the environment.                                                              |
| P202                                  | Do not handle until all safety precautions have been read and understood.                      |
| P264                                  | Wash all exposed external body areas thoroughly after handling.                                |

|                                     |                                                                                                                                  |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Precautionary statement(s) Response |                                                                                                                                  |
| P308+P313                           | IF exposed or concerned: Get medical advice/ attention.                                                                          |
| P305+P351+P338                      | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P312                                | Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.                                                            |
| P337+P313                           | If eye irritation persists: Get medical advice/attention.                                                                        |
| P391                                | Collect spillage.                                                                                                                |
| P302+P352                           | IF ON SKIN: Wash with plenty of water and soap.                                                                                  |
| P304+P340                           | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                                                       |
| P332+P313                           | If skin irritation occurs: Get medical advice/attention.                                                                         |
| P362+P364                           | Take off contaminated clothing and wash it before reuse.                                                                         |

|                                    |                                                                              |
|------------------------------------|------------------------------------------------------------------------------|
| Precautionary statement(s) Storage |                                                                              |
| P405                               | Store locked up.                                                             |
| P410+P412                          | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |
| P403+P233                          | Store in a well-ventilated place. Keep container tightly closed.             |

|                                     |                                                                                                                                  |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 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                                             |
| 1330-20-7      | 10-30                                                                                                                                                                                        | <u>xylene</u>                                    |
| Not Available  | 10-30                                                                                                                                                                                        | resin, proprietary                               |
| Not Available  | 10-30                                                                                                                                                                                        | filler                                           |
| 13463-67-7     | 1-10                                                                                                                                                                                         | <u>titanium dioxide</u>                          |
| 7779-90-0      | 1-10                                                                                                                                                                                         | <u>zinc phosphate</u>                            |
| 64742-95-6.    | 1-10                                                                                                                                                                                         | <u>naphtha petroleum, light aromatic solvent</u> |
| 64-17-5        | 1-10                                                                                                                                                                                         | <u>ethanol</u>                                   |
| 68476-85-7.    | 30-60                                                                                                                                                                                        | <u>hydrocarbon propellant</u>                    |
| <b>Legend:</b> | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available |                                                  |

SECTION 4 First aid measures

|                                   |                                                                                                                                                                     |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description of first aid measures |                                                                                                                                                                     |
| Eye Contact                       | If aerosols come in contact with the eyes:<br>▶ Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water. |

Continued...

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|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | <ul style="list-style-type: none"> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Transport to hospital or doctor without delay.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>                                                                                                                                                                                                                                |
| <b>Skin Contact</b> | <p>If solids or aerosol mists are deposited upon the skin:</p> <ul style="list-style-type: none"> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Remove any adhering solids with industrial skin cleansing cream.</li> <li>▶ <b>DO NOT use solvents.</b></li> <li>▶ Seek medical attention in the event of irritation.</li> </ul>                                                                                                                                                                                                                                             |
| <b>Inhalation</b>   | <p>If aerosols, fumes or combustion products are inhaled:</p> <ul style="list-style-type: none"> <li>▶ Remove to fresh air.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor.</li> </ul> |
| <b>Ingestion</b>    | <ul style="list-style-type: none"> <li>▶ Avoid giving milk or oils.</li> <li>▶ Avoid giving alcohol.</li> </ul> <p>Not considered a normal route of entry.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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

Treat symptomatically.

For acute or short term repeated exposures to xylene:

- ▶ Gastro-intestinal absorption is significant with ingestions. For ingestions exceeding 1-2 ml (xylene)/kg, intubation and lavage with cuffed endotracheal tube is recommended. The use of charcoal and cathartics is equivocal.
- ▶ Pulmonary absorption is rapid with about 60-65% retained at rest.
- ▶ Primary threat to life from ingestion and/or inhalation, is respiratory failure.
- ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> < 50 mm Hg or pCO<sub>2</sub> > 50 mm Hg) should be intubated.
- ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.

**BIOLOGICAL EXPOSURE INDEX - BEI**

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

| Determinant                    | Index                            | Sampling Time                       | Comments |
|--------------------------------|----------------------------------|-------------------------------------|----------|
| Methylhippu-ric acids in urine | 1.5 gm/gm creatinine<br>2 mg/min | End of shift<br>Last 4 hrs of shift |          |

**SECTION 5 Firefighting measures****Extinguishing media****SMALL FIRE:**

- ▶ Water spray, dry chemical or CO<sub>2</sub>

**LARGE FIRE:**

- ▶ Water spray or fog.

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

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

**Advice for firefighters**

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ If safe, switch off electrical equipment until vapour fire hazard removed.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> <li>▶ Equipment should be thoroughly decontaminated after use.</li> </ul>                                                                                                                                                                                                                                                                                                                                             |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Liquid and vapour are highly flammable.</li> <li>▶ Severe fire hazard when exposed to heat or flame.</li> <li>▶ Vapour forms an explosive mixture with air.</li> <li>▶ Severe explosion hazard, in the form of vapour, when exposed to flame or spark.</li> <li>▶ Vapour may travel a considerable distance to source of ignition.</li> <li>▶ Heating may cause expansion or decomposition with violent container rupture.</li> <li>▶ Aerosol cans may explode on exposure to naked flames.</li> <li>▶ Rupturing containers may rocket and scatter burning materials.</li> <li>▶ Hazards may not be restricted to pressure effects.</li> <li>▶ May emit acrid, poisonous or corrosive fumes.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include:</p> <ul style="list-style-type: none"> <li>▶ carbon dioxide (CO<sub>2</sub>)</li> <li>▶ other pyrolysis products typical of burning organic material.</li> </ul> <p><b>Contains low boiling substance:</b> Closed containers may rupture due to pressure buildup under fire conditions.</p> |
| <b>HAZCHEM</b>               | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

**SECTION 6 Accidental release measures****Personal precautions, protective equipment and emergency procedures**

See section 8

Continued...

## Dy-Mark Zinc Guard White Primer

## Environmental precautions

See section 12

## Methods and material for containment and cleaning up

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minor Spills | <ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Wear protective clothing, impervious gloves and safety glasses.</li> <li>▶ Shut off all possible sources of ignition and increase ventilation.</li> <li>▶ Wipe up.</li> <li>▶ If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.</li> <li>▶ Undamaged cans should be gathered and stowed safely.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Major Spills | <ul style="list-style-type: none"> <li>▶ DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve.</li> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water courses</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Water spray or fog may be used to disperse / absorb vapour.</li> <li>▶ Absorb or cover spill with sand, earth, inert materials or vermiculite.</li> <li>▶ If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.</li> <li>▶ Undamaged cans should be gathered and stowed safely.</li> <li>▶ Collect residues and seal in labelled drums for disposal.</li> <li>▶ Remove leaking cylinders to a safe place if possible.</li> <li>▶ Release pressure under safe, controlled conditions by opening the valve.</li> </ul> |

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

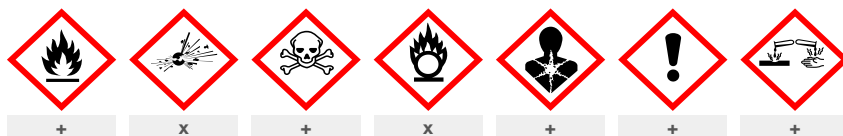
## SECTION 7 Handling and storage

## Precautions for safe handling

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safe handling     | <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> <li>▶ Avoid skin contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ Avoid smoking, naked lights or ignition sources.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></li> <li>▶ <b>DO NOT incinerate or puncture aerosol cans.</b></li> <li>▶ <b>DO NOT spray directly on humans, exposed food or food utensils.</b></li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> </ul> |
| Other information | <ul style="list-style-type: none"> <li>▶ Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can</li> <li>▶ Store in original containers in approved flammable liquid storage area.</li> <li>▶ <b>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</b></li> <li>▶ No smoking, naked lights, heat or ignition sources.</li> <li>▶ Keep containers securely sealed. Contents under pressure.</li> <li>▶ Store away from incompatible materials.</li> <li>▶ Store in a cool, dry, well ventilated area.</li> <li>▶ Avoid storage at temperatures higher than 40 deg C.</li> <li>▶ Store in an upright position.</li> <li>▶ Protect containers against physical damage.</li> <li>▶ Check regularly for spills and leaks.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>                                                                                                                                                                                                                                                                                                |

## Conditions for safe storage, including any incompatibilities

|                         |                                                                                                                               |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Suitable container      | <ul style="list-style-type: none"> <li>▶ Aerosol dispenser.</li> <li>▶ Check that containers are clearly labelled.</li> </ul> |
| Storage incompatibility | <ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul>                                      |



X — Must not be stored together

O — May be stored together with specific preventions

+ — May be stored together

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

## SECTION 8 Exposure controls / personal protection

## Control parameters

Occupational Exposure Limits (OEL)


Continued...

## Dy-Mark Zinc Guard White Primer

## INGREDIENT DATA

| Source                       | Ingredient             | Material name                 | TWA                   | STEL                | Peak          | Notes                                                                                    |
|------------------------------|------------------------|-------------------------------|-----------------------|---------------------|---------------|------------------------------------------------------------------------------------------|
| Australia Exposure Standards | xylene                 | Xylene (o-, m-, p-isomers)    | 80 ppm / 350 mg/m3    | 655 mg/m3 / 150 ppm | Not Available | Not Available                                                                            |
| Australia Exposure Standards | titanium dioxide       | Titanium dioxide              | 10 mg/m3              | Not Available       | Not Available | (a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica. |
| Australia Exposure Standards | ethanol                | Ethyl alcohol                 | 1000 ppm / 1880 mg/m3 | Not Available       | Not Available | Not Available                                                                            |
| Australia Exposure Standards | hydrocarbon propellant | LPG (liquified petroleum gas) | 1000 ppm / 1800 mg/m3 | Not Available       | Not Available | Not Available                                                                            |

## Exposure controls

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Appropriate engineering controls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 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:<br>Process controls which involve changing the way a job activity or process is done to reduce the risk.<br>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.<br>Employers may need to use multiple types of controls to prevent employee overexposure. |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.<br>Provide adequate ventilation in warehouse or closed storage areas.<br>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:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Speed:                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | aerosols, (released at low velocity into zone of active generation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.5-1 m/s                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1-2.5 m/s (200-500 f/min.)       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Within each range the appropriate value depends on:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Lower end of the range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Upper end of the range           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1: Room air currents minimal or favourable to capture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1: Disturbing room air currents  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2: Contaminants of low toxicity or of nuisance value only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2: Contaminants of high toxicity |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3: Intermittent, low production.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3: High production, heavy use    |
| 4: Large hood or large air mass in motion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 4: Small hood-local control only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                  |
| Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                  |
| Individual protection measures, such as personal protective equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                  |
| Eye and face protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"><li>▶ No special equipment for minor exposure i.e. when handling small quantities.</li><li>▶ OTHERWISE: For potentially moderate or heavy exposures:</li><li>▶ Safety glasses with side shields.</li><li>▶ NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                  |
| Skin protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | See Hand protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                  |
| Hands/feet protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"><li>▶ No special equipment needed when handling small quantities.</li><li>▶ OTHERWISE:</li><li>▶ For potentially moderate exposures:</li><li>▶ Wear general protective gloves, eg. light weight rubber gloves.</li><li>▶ For potentially heavy exposures:</li><li>▶ Wear chemical protective gloves, eg. PVC. and safety footwear.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                  |
| Body protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | See Other protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                  |
| Other protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p>No special equipment needed when handling small quantities.</p> <p><b>OTHERWISE:</b></p> <ul style="list-style-type: none"><li>▶ Overalls.</li><li>▶ Skin cleansing cream.</li><li>▶ Eyewash unit.</li><li>▶ Do not spray on hot surfaces.</li><li>▶ The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton.</li><li>▶ Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost.</li></ul> <p>BRETHERRICK: Handbook of Reactive Chemical Hazards.</p>                                                                                                                                                                                                               |                                  |

## 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:

Dy-Mark Zinc Guard White Primer

## Respiratory protection

Type AX 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.

Continued...

## Dy-Mark Zinc Guard White Primer

| Material          | CPI |
|-------------------|-----|
| PE/EVAL/PE        | A   |
| BUTYL             | C   |
| BUTYL/NEOPRENE    | C   |
| HYPALON           | C   |
| NAT+NEOPR+NITRILE | C   |
| NATURAL RUBBER    | C   |
| NATURAL+NEOPRENE  | C   |
| NEOPRENE          | C   |
| NEOPRENE/NATURAL  | C   |
| NITRILE           | C   |
| NITRILE+PVC       | C   |
| PVA               | C   |
| PVC               | C   |
| PVDC/PE/PVDC      | C   |
| TEFLON            | C   |
| VITON             | C   |

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

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

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

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

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|------------------------|
| up to 10 x ES                      | AX-AUS               | -                    | AX-PAPR-AUS / Class 1  |
| up to 50 x ES                      | -                    | AX-AUS / Class 1     | -                      |
| up to 100 x ES                     | -                    | AX-2                 | AX-PAPR-2 ^            |

^ - Full-face

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

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

## SECTION 9 Physical and chemical properties

## Information on basic physical and chemical properties

| Appearance                                     | White flammable aerosol; not miscible with water.<br>Supplied as an aerosol pack. Contents under <b>PRESSURE</b> . Contains highly flammable hydrocarbon propellant. |                                                     |                |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------|
| Physical state                                 | Liquid                                                                                                                                                               | Relative density (Water = 1)                        | Not Available  |
| Odour                                          | Not Available                                                                                                                                                        | Partition coefficient n-octanol / water             | Not Available  |
| Odour threshold                                | Not Available                                                                                                                                                        | Auto-ignition temperature (°C)                      | Not Available  |
| pH (as supplied)                               | Not Applicable                                                                                                                                                       | Decomposition temperature (°C)                      | Not Available  |
| Melting point / freezing point (°C)            | Not Available                                                                                                                                                        | Viscosity (cSt)                                     | Not Available  |
| Initial boiling point and boiling range (°C)   | Not Available                                                                                                                                                        | Molecular weight (g/mol)                            | Not Applicable |
| Flash point (°C)                               | -81 (propellant)                                                                                                                                                     | Taste                                               | Not Available  |
| Evaporation rate                               | Not Available                                                                                                                                                        | Explosive properties                                | Not Available  |
| Flammability                                   | HIGHLY FLAMMABLE.                                                                                                                                                    | Oxidising properties                                | Not Available  |
| Upper Explosive Limit (%)                      | Not Available                                                                                                                                                        | Surface Tension (dyn/cm or mN/m)                    | Not Available  |
| Lower Explosive Limit (%)                      | Not Available                                                                                                                                                        | Volatile Component (%vol)                           | >50            |
| Vapour pressure (kPa)                          | Not Available                                                                                                                                                        | Gas group                                           | Not Available  |
| Solubility in water                            | Immiscible                                                                                                                                                           | pH as a solution (1%)                               | Not Applicable |
| 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                 | <ul style="list-style-type: none"> <li>▶ Elevated temperatures.</li> <li>▶ Presence of open flame.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul> |
| Possibility of hazardous reactions | See section 7                                                                                                                                                                                              |
| Conditions to avoid                | See section 7                                                                                                                                                                                              |
| Incompatible materials             | See section 7                                                                                                                                                                                              |

Continued...

## Dy-Mark Zinc Guard White Primer

## 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         | There is sufficient evidence to classify this material as skin corrosive or irritating.                    |
| 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                      | There is sufficient evidence to classify this material as mutagenic                                        |
| f) Carcinogenicity                   | Based on available data, the classification criteria are not met.                                          |
| g) Reproductivity                    | Based on available data, the classification criteria are not met.                                          |
| h) STOT - Single Exposure            | There is sufficient evidence to classify this material as toxic to specific organs through single exposure |
| 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

Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.

Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.

There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

The acute toxicity of inhaled alkylbenzene is best described by central nervous system depression. These compounds may also act as general anaesthetics. Whole body symptoms of poisoning include light-headedness, nervousness, apprehension, a feeling of well-being, confusion, dizziness, drowsiness, ringing in the ears, blurred or double vision, vomiting and sensations of heat, cold or numbness, twitching, tremors, convulsions, unconsciousness, depression of breathing, and arrest. Heart stoppage may result from cardiovascular collapse. A slow heart rate and low blood pressure may also occur.

Alkylbenzenes are not generally toxic except at high levels of exposure. Their breakdown products have low toxicity and are easily eliminated from the body.

Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.

Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.

Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.

**WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.**

Exposure to hydrocarbons may result in irregularity of heart beat. Symptoms of moderate poisoning may include dizziness, headache, nausea.

## Ingestion

Accidental ingestion of the material may be damaging to the health of the individual.

Not normally a hazard due to physical form of product.

Considered an unlikely route of entry in commercial/industrial environments

## Skin Contact

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

This material can cause inflammation of the skin on contact in some persons.

The material may accentuate any pre-existing dermatitis condition

Spray mist may produce discomfort

Open cuts, abraded or irritated skin should not be exposed to this material

## Eye

This material causes serious eye irritation.

Not considered to be a risk because of the extreme volatility of the gas.

## Chronic

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

There is some evidence from animal testing that exposure to this material may result in toxic effects to the unborn baby.

Main route of exposure to the gas in the workplace is by inhalation.

Women exposed to xylene in the first 3 months of pregnancy showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to xylene has demonstrated lack of genetic toxicity.

Prolonged exposure to ethanol may cause damage to the liver and cause scarring. It may also worsen damage caused by other agents.

Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis).

Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]

**WARNING: Aerosol containers may present pressure related hazards.**

## Dy-Mark Zinc Guard White Primer

## TOXICITY

Not Available

## IRRITATION

Not Available

## xylene

## TOXICITY

Dermal (rabbit) LD50: >1700 mg/kg<sup>[2]</sup>Inhalation (Rat) LC50: 5000 ppm4h<sup>[2]</sup>Oral (Mouse) LD50: 2119 mg/kg<sup>[2]</sup>

## IRRITATION

Eye (Human): 200ppm

Eye (Rodent - rabbit): 5mg/24H - Severe

Eye (Rodent - rabbit): 87mg - Mild

Eye: adverse effect observed (irritating)<sup>[1]</sup>

Skin (Rodent - rabbit): 100% - Moderate

Skin (Rodent - rabbit): 500mg/24H - Moderate

Skin (Rodent - rat): 60uL/8H - Mild

Skin: adverse effect observed (irritating)<sup>[1]</sup>



## Dy-Mark Zinc Guard White Primer

|                                           |                                                     |                                                                  |
|-------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------|
| titanium dioxide                          | <b>TOXICITY</b>                                     | <b>IRRITATION</b>                                                |
|                                           | dermal (hamster) LD50: >=10000 mg/kg <sup>[2]</sup> | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                                           | Inhalation (Rat) LC50: >2.28 mg/L4h <sup>[1]</sup>  | Skin (Human): 300ug/3D (intermittent) - Mild                     |
| zinc phosphate                            | <b>TOXICITY</b>                                     | <b>IRRITATION</b>                                                |
|                                           | Inhalation (Rat) LC50: >5.7 mg/L4h <sup>[1]</sup>   | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                                           | Oral (Rat) LD50: >5000 mg/kg <sup>[2]</sup>         | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |
| naphtha petroleum, light aromatic solvent | <b>TOXICITY</b>                                     | <b>IRRITATION</b>                                                |
|                                           | Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>    | Eye (Rodent - rabbit): 100uL/24H - Mild                          |
|                                           | Inhalation (Rat) LC50: >4.42 mg/L4h <sup>[1]</sup>  | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
| ethanol                                   | <b>TOXICITY</b>                                     | <b>IRRITATION</b>                                                |
|                                           | Dermal (rabbit) LD50: 17100 mg/kg <sup>[1]</sup>    | Eye (Rodent - rabbit): 0.1mL                                     |
|                                           | Inhalation (Rat) LC50: 64000 ppm4h <sup>[2]</sup>   | Eye (Rodent - rabbit): 100mg/4S - Moderate                       |
|                                           | Oral (Rat) LD50: 7060 mg/kg <sup>[2]</sup>          | Eye (Rodent - rabbit): 100uL - Moderate                          |
|                                           |                                                     | Eye (Rodent - rabbit): 500mg - Severe                            |
|                                           |                                                     | Eye (Rodent - rabbit): 500mg/24H - Mild                          |
|                                           |                                                     | Eye (Rodent - rabbit): 50pph/1H - Mild                           |
|                                           |                                                     | Eye: adverse effect observed (irritating) <sup>[1]</sup>         |
|                                           |                                                     | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                                           |                                                     | Skin (Human): 70%/2D                                             |
|                                           |                                                     | Skin (Rodent - rabbit): 20mg/24H - Moderate                      |
|                                           |                                                     | Skin (Rodent - rabbit): 400mg - Mild                             |
| hydrocarbon propellant                    | <b>TOXICITY</b>                                     | <b>IRRITATION</b>                                                |
|                                           | Inhalation (Rat) LC50: 658 mg/L4h <sup>[2]</sup>    | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                                           |                                                     | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |

**Legend:**

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

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| XYLENE                                    | <p>Reproductive effector in rats</p> <p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>The substance is classified by IARC as Group 3:</p> <p><b>NOT</b> classifiable as to its carcinogenicity to humans.</p> <p>Evidence of carcinogenicity may be inadequate or limited in animal testing.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| TITANIUM DIOXIDE                          | <p>* IUCLID</p> <p>Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation.</p> <p>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.</p> <p>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.</p> <p><b>WARNING:</b> This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.</p> <p>The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> |
| NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT | <p>Inhalation (rat) TClO: 1320 ppm/6h/90D-I * [Devoe]</p> <p>Most Low Boiling Point Naphthas (LBPNs) have low acute toxicity to oral, dermal and inhalation routes of exposure, and mild to moderate skin and eye irritating effects. However, some heavier 'cracked' LBPNs (LKBPNS with greater olefinic content) have been found to be more irritating to the skin and eyes compared to non-cracked LBPNs.</p> <p>LBPNs are not known to be sensitising to the skin.</p> <p>Animal studies examined the effects of short-term and longer-term exposure to LBPNs through inhalation or oral routes. In male rats specifically, exposure to LBPNs resulted in kidney-related issues like increased kidney weight, kidney lesions, and hyaline droplet formation. However, the same effects were not seen in female rats, mice, or humans due to a mechanism of action involving a particular enzyme only found in male rats. Limited studies found that exposure through inhalation caused an increase in liver weight in both male and female rats. Dermal exposure to one specific LBPN (light cracked naphtha) resulted in skin irritation and changes at low doses in rats. Few studies were</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

Continued...



## Dy-Mark Zinc Guard White Primer

available regarding the chronic toxicity of LBPNS, but one study exposed mice and rats to unleaded gasoline (containing 2% benzene) and found ocular and kidney effects at concentrations of 200 mg/m<sup>3</sup> and 6170 mg/m<sup>3</sup>, respectively.

Testing of LBPNS genetic effects have shown mixed results when performed using in vitro studies. In vivo studies of LBPNS showed no negative outcomes. Some LBPNS have been shown to cause unusual chromosome formation. Testing of genotoxicity of unleaded gasoline (containing 2% benzene) found that unusual DNA synthesis was induced in mice via oral exposure. Similarly, unleaded gasoline with 2% benzene content resulted in replicative DNA synthesis in rat kidney cells via oral and inhalation exposures. While the majority of in vivo genotoxicity results for LBPNS substances are negative, the potential for genotoxicity of LBPNS as a group cannot be disregarded based on the mixed in vitro genotoxicity results.

Limited evidence exists demonstrating the carcinogenicity of skin and blood following exposure to LBPNS. The published studies studying the incidence of cancer due to LBPNS had several limitations, including a lack of exposure data and the inability to definitively exclude the exposure effects of gasoline combustion products from the effects of gasoline itself. Only unleaded gasoline has been examined for its carcinogenic potential in inhalation studies among LBPNS substances. One such study found that inhalation of exposure of unleaded gasoline (2% benzene) resulted in promotion of liver tumours in female mice at a dosage of 6170 mg/m<sup>3</sup> over 2 years, but did not initiate tumour formation. Both the European Commission and the International Agency for Research on Cancer (IARC) have classified LBPNS substances as carcinogenic. All of these substances were classified by the European Commission (2008) as Category 2 carcinogens (benzene content = 0.1% by weight). The IARC has classified gasoline as a Group 2B carcinogen (possibly carcinogenic to humans) and "occupational exposures in petroleum refining" as Group 2A carcinogens (probably carcinogenic to humans). Induction of both benign and malignant tumours has been found following dermal exposure to mice to heavy catalytic cracked naphtha, light catalytic cracked naphtha, light straight-run naphtha and naphtha. On the other hand, insignificant increases in tumour formation or no tumours were observed when light alkylate naphtha, heavy catalytic reformed naphtha, sweetened naphtha, light catalytically cracked naphtha or unleaded gasoline was dermally applied to mice.

No reproductive or developmental toxicity was observed for the majority of LBPNS substances evaluated. Most of these studies were carried out by inhalation exposure in rodents. However, developmental toxicity was observed for a few naphthas. Decreased foetus body weight and an increased incidence of bone malformation were observed when female rats were exposed to light aromatized solvent naphtha at 1250mg/kg bodyweight. Another study found that pregnant rats exposed to hydrotreated heavy naphtha (~4500 mg/kg bodyweight) via inhalation birth offspring with greater birth weights, and decreased cognitive and memory ability. For oral exposures, no adverse effects on reproductive parameters were reported when rats were given site-restricted light catalytic cracked naphtha at 2000 mg/kg bodyweight on gestational day 13.

Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins.

The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. Some hydrocarbons may appear unchanged as in the lipoprotein particles in the gut lymph, but most hydrocarbons partly separate from fats and undergo metabolism in the gut cell. The gut cell may play a major role in determining the proportion of hydrocarbon that becomes available to be deposited unchanged in peripheral tissues such as in the body fat stores or the liver.

For trimethylbenzenes:

Absorption of 1,2,4-trimethylbenzene occurs after exposure by swallowing, inhalation, or skin contact. In the workplace, inhalation and skin contact are the most important routes of absorption; whole-body toxic effects from skin absorption are unlikely to occur as the skin irritation caused by the chemical generally leads to quick removal. The substance is fat-soluble and may accumulate in fatty tissues. It is also bound to red blood cells in the bloodstream. It is excreted from the body both by exhalation and in the urine.

Acute toxicity: Direct contact with liquid 1,2,4-trimethylbenzene is irritating to the skin, and breathing the vapour is irritating to the airway, causing lung inflammation. Breathing high concentrations of the chemical vapour causes headache, fatigue and drowsiness. In humans, liquid 1,2,4-trimethylbenzene is irritating to the skin and inhalation of the vapour causes chemical pneumonitis. Direct skin contact causes dilation of blood vessels, redness and irritation.

Nervous system toxicity: 1,2,4-trimethylbenzene depresses the central nervous system. Exposure to solvent mixtures in the workplace containing the chemical causes headache, fatigue, nervousness and drowsiness.

Subacute/chronic toxicity: Long-term exposure to solvents containing 1,2,4-trimethylbenzene may cause nervousness, tension and inflammation of the bronchi. Painters that worked for several years with a solvent containing 50% 1,2,4-trimethylbenzene and 30% 1,3,5-trimethylbenzene showed nervousness, tension and anxiety, asthmatic bronchitis, anaemia and changes in blood clotting; blood effects may have been due to trace amounts of benzene. Animal testing showed that inhaling trimethylbenzene may alter blood counts, with reduction in lymphocytes and an increase in neutrophils.

Genetic toxicity: Animal testing does not show that the C9 fraction causes mutations or chromosomal aberrations.

Developmental / reproductive toxicity: Animal testing showed that the C9 fraction of 1,2,4-trimethylbenzene caused reproductive toxicity.

For C9 aromatics (typically trimethylbenzenes – TMBs)

Acute toxicity: Animal testing shows that semi-lethal concentrations and doses vary amongst this group. The semilethal concentrations for inhalation range from 6000 to 10000 mg/cubic metre for C9 aromatic naphtha and 18000-24000 mg/cubic metre for 1,2,4- and 1,3,5-TMB, respectively.

Irritation and sensitization: Results from animal testing indicate that C9 aromatic hydrocarbon solvents are mildly to moderately irritating to the skin, minimally irritating to the eye, and have the potential to irritate the airway and cause depression of breathing rate. There is no evidence that it sensitizes skin.

Repeated dose toxicity: Animal studies show that chronic inhalation toxicity for C9 aromatic hydrocarbon solvents is slight. Similarly, oral exposure does not appear to pose a high toxicity hazard for pure trimethylbenzene isomers.

Mutation-causing ability: No evidence of mutation-causing ability and genetic toxicity was found in animal and laboratory testing.

Reproductive and developmental toxicity: No definitive effects on reproduction were seen, although reduction in weight in developing animals may be seen at concentrations that are toxic to the mother.

Petroleum contains aromatic (benzene, toluene, ethyl benzene, naphthalene) and aliphatic hydrocarbons (n-hexane), which can result in many detrimental health effects, including, cancer, tumour formation, hearing loss, and nervous system toxicity.

Animal testing shows breathing in petroleum causes tumours of the liver and kidney; these are however not considered to be relevant in humans. Similarly, exposure to gasoline over a lifetime can cause kidney cancer in animals, but the relevance in humans is questionable. Most studies involving gasoline have shown that gasoline does not cause genetic mutation, including all recent studies in living human subjects (such as in petrol service station attendants).

Animal studies show concentrations of toluene (>0.1%) can cause developmental effects such as lower birth weight and developmental toxicity to the nervous system of the foetus. Other studies show no adverse effects on the foetus.

Prolonged contact with petroleum may result in skin inflammation and make the skin more sensitive to irritation and penetration by other materials.

|                                                      |                                                                                                                                                                                                |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HYDROCARBON PROPELLANT</b>                        | inhalation of the gas                                                                                                                                                                          |
| <b>XYLENE &amp; TITANIUM DIOXIDE &amp; ETHANOL</b>   | 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. |
| <b>TITANIUM DIOXIDE &amp; HYDROCARBON PROPELLANT</b> | No significant acute toxicological data identified in literature search.                                                                                                                       |

|                                          |   |                                 |   |
|------------------------------------------|---|---------------------------------|---|
| <b>Acute Toxicity</b>                    | ✗ | <b>Carcinogenicity</b>          | ✗ |
| <b>Skin Irritation/Corrosion</b>         | ✓ | <b>Reproductivity</b>           | ✗ |
| <b>Serious Eye Damage/Irritation</b>     | ✓ | <b>STOT - Single Exposure</b>   | ✓ |
| <b>Respiratory or Skin sensitisation</b> | ✗ | <b>STOT - Repeated Exposure</b> | ✗ |

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

|                                           |               |                    |                               |               |               |
|-------------------------------------------|---------------|--------------------|-------------------------------|---------------|---------------|
| Dy-Mark Zinc Guard White Primer           | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| xylene                                    | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | EC50          | 72h                | Algae or other aquatic plants | 4.6mg/l       | 2             |
|                                           | EC50          | 48h                | Crustacea                     | 1.8mg/l       | 2             |
|                                           | NOEC(ECx)     | 73h                | Algae or other aquatic plants | 0.44mg/l      | 2             |
|                                           | LC50          | 96h                | Fish                          | 2.6mg/l       | 2             |
| titanium dioxide                          | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | BCF           | 1008h              | Fish                          | <1.1-9.6      | 7             |
|                                           | EC50          | 72h                | Algae or other aquatic plants | 3.75-7.58mg/l | 4             |
|                                           | EC50          | 48h                | Crustacea                     | 1.9mg/l       | 2             |
|                                           | NOEC(ECx)     | 672h               | Fish                          | >=0.004mg/L   | 2             |
|                                           | EC50          | 96h                | Algae or other aquatic plants | 179.05mg/l    | 2             |
| zinc phosphate                            | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | EC50          | 72h                | Algae or other aquatic plants | 0.051mg/L     | 2             |
|                                           | EC50          | 48h                | Crustacea                     | 0.105mg/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                          | 0.09mg/L      | 4             |
| naphtha petroleum, light aromatic solvent | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | EC50          | 72h                | Algae or other aquatic plants | 19mg/l        | 1             |
|                                           | EC50          | 48h                | Crustacea                     | 6.14mg/l      | 1             |
|                                           | EC50          | 96h                | Algae or other aquatic plants | 64mg/l        | 2             |
| ethanol                                   | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | NOEC(ECx)     | 72h                | Algae or other aquatic plants | 1mg/l         | 1             |
|                                           | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | EC50          | 72h                | Algae or other aquatic plants | 275mg/l       | 2             |
|                                           | EC50          | 48h                | Crustacea                     | 2mg/L         | 4             |
| hydrocarbon propellant                    | EC50          | 96h                | Algae or other aquatic plants | <0.001mg/L    | 4             |
|                                           | EC50(ECx)     | 96h                | Algae or other aquatic plants | <0.001mg/L    | 4             |
|                                           | LC50          | 96h                | Fish                          | 42mg/L        | 4             |
|                                           | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                           | EC50          | 96h                | Algae or other aquatic plants | 7.71mg/l      | 2             |
| hydrocarbon propellant                    | EC50(ECx)     | 96h                | Algae or other aquatic plants | 7.71mg/l      | 2             |
|                                           | LC50          | 96h                | Fish                          | 24.11mg/l     | 2             |

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. US EPA, Ecotox database - Aquatic Toxicity Data 4. ECETOC Aquatic Hazard Assessment Data 5. NITE (Japan) - Bioconcentration Data 6. METI (Japan) - Bioconcentration Data 7. Vendor Data

Toxic 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            |
| xylene           | HIGH (Half-life = 360 days) | LOW (Half-life = 1.83 days) |
| titanium dioxide | HIGH                        | HIGH                        |
| ethanol          | LOW (Half-life = 2.17 days) | LOW (Half-life = 5.08 days) |

Bioaccumulative potential

|            |                    |
|------------|--------------------|
| Ingredient | Bioaccumulation    |
| xylene     | MEDIUM (BCF = 740) |

| Ingredient             | Bioaccumulation      |
|------------------------|----------------------|
| titanium dioxide       | LOW (BCF = 10)       |
| ethanol                | LOW (LogKOW = -0.31) |
| hydrocarbon propellant | LOW (LogKOW = 3.39)  |

Mobility in soil

| Ingredient       | Mobility              |
|------------------|-----------------------|
| titanium dioxide | LOW (Log KOC = 23.74) |
| ethanol          | HIGH (Log KOC = 1)    |



SECTION 13 Disposal considerations

Waste treatment methods

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product / Packaging disposal | <ul style="list-style-type: none"><li>▶ <b>DO NOT</b> allow wash water from cleaning or process equipment to enter drains.</li><li>▶ It may be necessary to collect all wash water for treatment before disposal.</li><li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li><li>▶ Where in doubt contact the responsible authority.</li><li>▶ Consult State Land Waste Management Authority for disposal.</li><li>▶ Discharge contents of damaged aerosol cans at an approved site.</li><li>▶ Allow small quantities to evaporate.</li><li>▶ <b>DO NOT</b> incinerate or puncture aerosol cans.</li><li>▶ Bury residues and emptied aerosol cans at an approved site.</li></ul> |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

SECTION 14 Transport information

Labels Required

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
|                  |   |
| Marine Pollutant |  |
| HAZCHEM          | Not Applicable                                                                      |

Land transport (ADG)

|                                    |                                                                                                                                     |                    |                        |                   |                |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------|-------------------|----------------|
| 14.1. UN number or ID number       | 1950                                                                                                                                |                    |                        |                   |                |
| 14.2. UN proper shipping name      | AEROSOLS                                                                                                                            |                    |                        |                   |                |
| 14.3. Transport hazard class(es)   | <table><tr><td>Class</td><td>2.1</td></tr><tr><td>Subsidiary Hazard</td><td>Not Applicable</td></tr></table>                        | Class              | 2.1                    | Subsidiary Hazard | Not Applicable |
| Class                              | 2.1                                                                                                                                 |                    |                        |                   |                |
| Subsidiary Hazard                  | Not Applicable                                                                                                                      |                    |                        |                   |                |
| 14.4. Packing group                | Not Applicable                                                                                                                      |                    |                        |                   |                |
| 14.5. Environmental hazard         | Environmentally hazardous                                                                                                           |                    |                        |                   |                |
| 14.6. Special precautions for user | <table><tr><td>Special provisions</td><td>63 190 277 327 344 381</td></tr><tr><td>Limited quantity</td><td>1000ml</td></tr></table> | Special provisions | 63 190 277 327 344 381 | Limited quantity  | 1000ml         |
| Special provisions                 | 63 190 277 327 344 381                                                                                                              |                    |                        |                   |                |
| Limited quantity                   | 1000ml                                                                                                                              |                    |                        |                   |                |

Air transport (ICAO-IATA / DGR)

|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------|---------------------------------|----------------|-------------------------------|--------|------------------------------------------|-----------|----------------------------------------|-----------|-----------------------------------------------------------|-----------|------------------------------------------------|-----------|
| 14.1. UN number                                           | 1950                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| 14.2. UN proper shipping name                             | Aerosols, flammable (engine starting fluid)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| 14.3. Transport hazard class(es)                          | <table><tr><td>ICAO/IATA Class</td><td>2.1</td></tr><tr><td>ICAO / IATA Subsidiary Hazard</td><td>Not Applicable</td></tr><tr><td>ERG Code</td><td>10L</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                      | ICAO/IATA Class    | 2.1               | ICAO / IATA Subsidiary Hazard   | Not Applicable | ERG Code                      | 10L    |                                          |           |                                        |           |                                                           |           |                                                |           |
| ICAO/IATA Class                                           | 2.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| ICAO / IATA Subsidiary Hazard                             | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| ERG Code                                                  | 10L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| 14.4. Packing group                                       | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| 14.5. Environmental hazard                                | Environmentally hazardous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| 14.6. Special precautions for user                        | <table><tr><td>Special provisions</td><td>A1 A145 A167 A802</td></tr><tr><td>Cargo Only Packing Instructions</td><td>203</td></tr><tr><td>Cargo Only Maximum Qty / Pack</td><td>150 kg</td></tr><tr><td>Passenger and Cargo Packing Instructions</td><td>Forbidden</td></tr><tr><td>Passenger and Cargo Maximum Qty / Pack</td><td>Forbidden</td></tr><tr><td>Passenger and Cargo Limited Quantity Packing Instructions</td><td>Forbidden</td></tr><tr><td>Passenger and Cargo Limited Maximum Qty / Pack</td><td>Forbidden</td></tr></table> | Special provisions | A1 A145 A167 A802 | Cargo Only Packing Instructions | 203            | Cargo Only Maximum Qty / Pack | 150 kg | Passenger and Cargo Packing Instructions | Forbidden | Passenger and Cargo Maximum Qty / Pack | Forbidden | Passenger and Cargo Limited Quantity Packing Instructions | Forbidden | Passenger and Cargo Limited Maximum Qty / Pack | Forbidden |
| Special provisions                                        | A1 A145 A167 A802                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| Cargo Only Packing Instructions                           | 203                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| Cargo Only Maximum Qty / Pack                             | 150 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| Passenger and Cargo Packing Instructions                  | Forbidden                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| Passenger and Cargo Maximum Qty / Pack                    | Forbidden                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| Passenger and Cargo Limited Quantity Packing Instructions | Forbidden                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |
| Passenger and Cargo Limited Maximum Qty / Pack            | Forbidden                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                   |                                 |                |                               |        |                                          |           |                                        |           |                                                           |           |                                                |           |

## Dy-Mark Zinc Guard White Primer

## Sea transport (IMDG-Code / GGVSee)

|                                    |                        |                            |  |
|------------------------------------|------------------------|----------------------------|--|
| 14.1. UN number                    | 1950                   |                            |  |
| 14.2. UN proper shipping name      | AEROSOLS               |                            |  |
| 14.3. Transport hazard class(es)   | IMDG Class             | 2.1                        |  |
|                                    | IMDG Subsidiary Hazard | Not Applicable             |  |
| 14.4. Packing group                | Not Applicable         |                            |  |
| 14.5. Environmental hazard         | Marine Pollutant       |                            |  |
| 14.6. Special precautions for user | EMS Number             | F-D, S-U                   |  |
|                                    | Special provisions     | 63 190 277 327 344 381 959 |  |
|                                    | Limited Quantities     | 1000 ml                    |  |

## 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          |
|-------------------------------------------|----------------|
| xylene                                    | Not Applicable |
| titanium dioxide                          | Not Applicable |
| zinc phosphate                            | Not Applicable |
| naphtha petroleum, light aromatic solvent | Not Applicable |
| ethanol                                   | Not Applicable |
| hydrocarbon propellant                    | Not Applicable |

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

| Product name                              | Ship Type      |
|-------------------------------------------|----------------|
| xylene                                    | Not Applicable |
| titanium dioxide                          | Not Applicable |
| zinc phosphate                            | Not Applicable |
| naphtha petroleum, light aromatic solvent | Not Applicable |
| ethanol                                   | Not Applicable |
| hydrocarbon propellant                    | Not Applicable |

## SECTION 15 Regulatory information

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

## xylene is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6  
 Australian Inventory of Industrial Chemicals (AIIC)  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

## titanium dioxide is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)  
 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)

## zinc phosphate is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4  
 Australian Inventory of Industrial Chemicals (AIIC)  
 International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

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

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

## ethanol is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5  
 Australian Inventory of Industrial Chemicals (AIIC)

Continued...

## Dy-Mark Zinc Guard White Primer

## hydrocarbon propellant is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

## Additional Regulatory Information

Not Applicable

## National Inventory Status

| National Inventory                                | Status                                                                                                                                                                                            |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Australia - AIIC / Australia Non-Industrial Use   | Yes                                                                                                                                                                                               |
| Canada - DSL                                      | Yes                                                                                                                                                                                               |
| Canada - NDSL                                     | No (xylene; naphtha petroleum, light aromatic solvent; ethanol; hydrocarbon propellant)                                                                                                           |
| China - IECSC                                     | Yes                                                                                                                                                                                               |
| Europe - EINEC / ELINCS / NLP                     | Yes                                                                                                                                                                                               |
| Japan - ENCS                                      | Yes                                                                                                                                                                                               |
| Korea - KECI                                      | Yes                                                                                                                                                                                               |
| New Zealand - NZIoC                               | Yes                                                                                                                                                                                               |
| Philippines - PICCS                               | Yes                                                                                                                                                                                               |
| USA - TSCA                                        | All chemical substances in this product have been designated as TSCA Inventory 'Active'                                                                                                           |
| Taiwan - TCSI                                     | Yes                                                                                                                                                                                               |
| Mexico - INSQ                                     | No (zinc phosphate)                                                                                                                                                                               |
| Vietnam - NCI                                     | Yes                                                                                                                                                                                               |
| Russia - FBEPH                                    | Yes                                                                                                                                                                                               |
| UAE - Control List (Banned/Restricted Substances) | No (xylene; titanium dioxide; zinc phosphate; naphtha petroleum, light aromatic solvent; ethanol; hydrocarbon propellant)                                                                         |
| <b>Legend:</b>                                    | Yes = All CAS declared ingredients are on the inventory<br>No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration. |

## SECTION 16 Other information

|               |            |
|---------------|------------|
| Revision Date | 23/12/2022 |
| Initial Date  | 28/04/2014 |

## SDS Version Summary

| Version | Date of Update | Sections Updated                                  |
|---------|----------------|---------------------------------------------------|
| 9.1     | 27/08/2020     | Disposal considerations - Disposal                |
| 10.1    | 23/12/2022     | Classification review due to GHS Revision change. |

## Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

## Definitions and abbreviations

- ▶ PC - TWA: Permissible Concentration-Time Weighted Average
- ▶ PC - STEL: Permissible Concentration-Short Term Exposure Limit
- ▶ IARC: International Agency for Research on Cancer
- ▶ ACGIH: American Conference of Governmental Industrial Hygienists
- ▶ STEL: Short Term Exposure Limit
- ▶ TEEL: Temporary Emergency Exposure Limit,
- ▶ IDLH: Immediately Dangerous to Life or Health Concentrations
- ▶ ES: Exposure Standard
- ▶ OSF: Odour Safety Factor
- ▶ NOAEL: No Observed Adverse Effect Level
- ▶ LOAEL: Lowest Observed Adverse Effect Level
- ▶ TLV: Threshold Limit Value
- ▶ LOD: Limit Of Detection
- ▶ OTV: Odour Threshold Value
- ▶ BCF: BioConcentration Factors
- ▶ BEI: Biological Exposure Index
- ▶ DNEL: Derived No-Effect Level
- ▶ PNEC: Predicted no-effect concentration
- ▶ MARPOL: International Convention for the Prevention of Pollution from Ships
- ▶ IMSBC: International Maritime Solid Bulk Cargoes Code
- ▶ IGC: International Gas Carrier Code
- ▶ IBC: International Bulk Chemical Code
- ▶ AIIC: Australian Inventory of Industrial Chemicals
- ▶ DSL: Domestic Substances List
- ▶ NDSL: Non-Domestic Substances List
- ▶ IECSC: Inventory of Existing Chemical Substance in China
- ▶ EINECS: European Inventory of Existing Commercial chemical Substances

- ▶ ELINCS: European List of Notified Chemical Substances
- ▶ NLP: No-Longer Polymers
- ▶ ENCS: Existing and New Chemical Substances Inventory
- ▶ KECI: Korea Existing Chemicals Inventory
- ▶ NZIoC: New Zealand Inventory of Chemicals
- ▶ PICCS: Philippine Inventory of Chemicals and Chemical Substances
- ▶ TSCA: Toxic Substances Control Act
- ▶ TCSI: Taiwan Chemical Substance Inventory
- ▶ INSQ: Inventario Nacional de Sustancias Químicas
- ▶ NCI: National Chemical Inventory
- ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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TEL (+61 3) 9572 4700.