

Wattyl All Purpose Enamel MCRLF (Lead Free Colours)

Valspar (a part of Sherwin-Williams)

Chemwatch Hazard Alert Code: 3

Chemwatch: 5102-08

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Safety Data Sheet according to WHS and ADG requirements

S.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

| | |
|-------------------------------|--|
| Product name | Wattyl All Purpose Enamel MCRLF (Lead Free Colours) |
| Synonyms | Not Available |
| Proper shipping name | PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound) |
| Other means of identification | Not Available |

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

| | |
|--------------------------|---|
| Relevant identified uses | Use according to manufacturer's directions. The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation. |
|--------------------------|---|

Details of the supplier of the safety data sheet

| | |
|-------------------------|--|
| Registered company name | Valspar (a part of Sherwin-Williams) |
| Address | Level 4, 2 Burbank Place Baulkham Hills NSW 2153 Australia |
| Telephone | +61 2 8867 3333 |
| Fax | +61 2 9831 2651 |
| Website | Not Available |
| Email | Not Available |

Emergency telephone number

| | |
|-----------------------------------|---|
| Association / Organisation | Not Available |
| Emergency telephone numbers | 1800 039 008 (24 hours),+61 3 9573 3112 |
| Other emergency telephone numbers | 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 | 3 | |
| Toxicity | 2 | |
| Body Contact | 1 | |
| Reactivity | 1 | |
| Chronic | 2 | |

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

| | |
|-------------------------------|--|
| Poisons Schedule | S5 |
| Classification ^[1] | Flammable Liquid Category 2, Reproductive Toxicity Category 2, Specific target organ toxicity - single exposure Category 3 (narcotic effects), Specific target organ toxicity - repeated exposure Category 2, Aspiration Hazard Category 1, Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3 |

Continued...

Wattyl All Purpose Enamel MCRLF (Lead Free Colours)

Legend: 1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Label elements

| | |
|----------------------------|---|
| Hazard pictogram(s) |  |
| SIGNAL WORD | DANGER |

Hazard statement(s)

| | |
|-------------|--|
| H225 | Highly flammable liquid and vapour. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H336 | May cause drowsiness or dizziness. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H304 | May be fatal if swallowed and enters airways. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary statement(s) Prevention

| | |
|-------------|---|
| P201 | Obtain special instructions before use. |
| P210 | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P281 | Use personal protective equipment as required. |
| P240 | Ground/bond container and receiving equipment. |
| P241 | Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment. |

Precautionary statement(s) Response

| | |
|-----------------------|--|
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P331 | Do NOT induce vomiting. |
| P370+P378 | In case of fire: Use alcohol resistant foam or normal protein foam for extinction. |
| P312 | Call a POISON CENTER or doctor/physician if you feel unwell. |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |

Precautionary statement(s) Storage

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

Precautionary statement(s) Disposal

| | |
|-------------|---|
| P501 | Dispose of contents/container in accordance with local regulations. |
|-------------|---|

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|-------------|-----------|--|
| 63148-69-6 | 30-60 | <u>alkyd resin - unregulated</u> |
| 64742-89-8. | 5-15 | <u>solvent naphtha petroleum, light aliphatic</u> |
| 64742-82-1. | 1-9 | <u>naphtha, petroleum, hydrodesulfurised heavy</u> |

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| | | |
|---------------|------|---------------------------------|
| Not Available | 0-30 | pigments, including |
| 13463-67-7 | | <u>titanium dioxide</u> |
| 1333-86-4 | | <u>carbon black</u> |
| Not Available | 1-5 | additives |
| | | contains less than 0.1% benzene |

SECTION 4 FIRST AID MEASURES

Description of first aid measures

| | |
|---------------------|--|
| Eye Contact | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ Wash out immediately with fresh running water. ▶ 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. ▶ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| Skin Contact | <p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation. |
| Inhalation | <ul style="list-style-type: none"> ▶ If fumes or combustion products are inhaled remove from contaminated area. ▶ Lay patient down. Keep warm and rested. ▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ▶ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ▶ Transport to hospital, or doctor. |
| Ingestion | <ul style="list-style-type: none"> ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice. |

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- ▶ Primary threat to life, from pure petroleum distillate 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 (pO₂ 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.
- ▶ Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

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

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- ▶ Water spray or fog.
- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ Carbon dioxide.

Do not use a water jet to fight fire.

Special hazards arising from the substrate or mixture

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

Advice for firefighters

| | |
|------------------------------|---|
| Fire Fighting | <ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves in the event of a fire. ▶ Prevent, by any means available, spillage from entering drains or water course. ▶ Consider evacuation (or protect in place). ▶ Fight fire from a safe distance, with adequate cover. ▶ If safe, switch off electrical equipment until vapour fire hazard removed. |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> ▶ Liquid and vapour are highly flammable. ▶ Severe fire hazard when exposed to heat, flame and/or oxidisers. ▶ Vapour may travel a considerable distance to source of ignition. ▶ Heating may cause expansion or decomposition leading to violent rupture of containers. ▶ On combustion, may emit toxic fumes of carbon monoxide (CO). <p>Combustion products include: carbon dioxide (CO₂) , other pyrolysis products typical of burning organic material.</p> |
| HAZCHEM | •3YE |

SECTION 6 ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

| | |
|---------------------|--|
| Minor Spills | <ul style="list-style-type: none"> ▶ Remove all ignition sources. ▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Control personal contact with the substance, by using protective equipment. ▶ Contain and absorb small quantities with vermiculite or other absorbent material. ▶ Wipe up. ▶ Collect residues in a flammable waste container. |
| Major Spills | <ul style="list-style-type: none"> ▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water course. ▶ Consider evacuation (or protect in place). ▶ No smoking, naked lights or ignition sources. |

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"> ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Prevent concentration in hollows and sumps. ▶ DO NOT enter confined spaces until atmosphere has been checked. ▶ Avoid smoking, naked lights, heat or ignition sources. ▶ When handling, DO NOT eat, drink or smoke. ▶ Containers, even those that have been emptied, may contain explosive vapours. ▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers. |
| Other information | <ul style="list-style-type: none"> ▶ Store in original containers in approved flame-proof area. ▶ No smoking, naked lights, heat or ignition sources. ▶ DO NOT store in pits, depressions, basements or areas where vapours may be trapped. ▶ Keep containers securely sealed. ▶ Store away from incompatible materials in a cool, dry well ventilated area. ▶ Protect containers against physical damage and check regularly for leaks. ▶ Observe manufacturer's storage and handling recommendations contained within this SDS. |

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Conditions for safe storage, including any incompatibilities

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| Suitable container | <ul style="list-style-type: none"> ▶ Packing as supplied by manufacturer. ▶ Plastic containers may only be used if approved for flammable liquid. ▶ Check that containers are clearly labelled and free from leaks. ▶ For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure. ▶ For materials with a viscosity of at least 2680 cSt. (23 deg. C) ▶ For manufactured product having a viscosity of at least 250 cSt. (23 deg. C) ▶ Manufactured product that requires stirring before use and having a viscosity of at least 20 cSt (25 deg. C): (i) Removable head packaging; (ii) Cans with friction closures and (iii) low pressure tubes and cartridges may be used. ▶ Where combination packages are used, and the inner packages are of glass, there must be sufficient inert cushioning material in contact with inner and outer packages ▶ In addition, where inner packagings are glass and contain liquids of packing group I there must be sufficient inert absorbent to absorb any spillage, unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic. |
| Storage incompatibility | <ul style="list-style-type: none"> ▶ Avoid reaction with oxidising agents |

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|------------------------------|---|---------------------------|-----------|---------------|---------------|---------------|
| Australia Exposure Standards | solvent naphtha petroleum, light aliphatic | Oil mist, refined mineral | 5 mg/m3 | Not Available | Not Available | Not Available |
| Australia Exposure Standards | naphtha, petroleum, hydrodesulfurised heavy | White spirits | 790 mg/m3 | Not Available | Not Available | Not Available |
| Australia Exposure Standards | naphtha, petroleum, hydrodesulfurised heavy | Petrol (gasoline) | 900 mg/m3 | Not Available | Not Available | Not Available |
| Australia Exposure Standards | titanium dioxide | Titanium dioxide | 10 mg/m3 | Not Available | Not Available | Not Available |
| Australia Exposure Standards | carbon black | Carbon black | 3 mg/m3 | Not Available | Not Available | Not Available |

EMERGENCY LIMITS

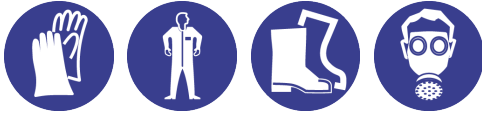
| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|---|--|-------------|-------------|--------------|
| naphtha, petroleum, hydrodesulfurised heavy | Naphtha, hydrotreated heavy; (Isopar L-rev 2) | 350 mg/m3 | 1,800 mg/m3 | 40,000 mg/m3 |
| naphtha, petroleum, hydrodesulfurised heavy | Petroleum distillates; petroleum ether; includes clay-treated light naphthenic [64742-45-6]; low boiling [68477-31-6]; petroleum extracts [64742-06-9]; petroleum base oil [64742-46-7]; petroleum 50 thinner, petroleum spirits [64475-85-0], Soltrol, VM&P naphtha [8032-32-4]; Lignoine, and paint solvent; petroleum paraffins C5-C20 [64771-72-8]; hydrotreated light naphthenic [64742-53-6]; solvent refined light naphthenic [64741-97-5]; and machine coolant 1 | 1,100 mg/m3 | 1,800 mg/m3 | 40,000 mg/m3 |
| naphtha, petroleum, hydrodesulfurised heavy | Naphtha (coal tar); includes solvent naphtha, petroleum (64742-88-7), naphtha (petroleum) light aliphatic, rubber solvent (64742-89-8), heavey catalytic cracked (64741-54-4), light straight run (64741-46-4), heavy aliphatic solvent (64742-96-7), high flash aromatic and aromatic solvent naphtha (64742-95-6) | 1,200 mg/m3 | 6,700 mg/m3 | 40,000 mg/m3 |
| naphtha, petroleum, hydrodesulfurised heavy | Stoddard solvent; (Mineral spirits, 85% nonane and 15% trimethyl benzene) | 300 mg/m3 | 1,800 mg/m3 | 29500 mg/m3 |
| titanium dioxide | Titanium oxide; (Titanium dioxide) | 30 mg/m3 | 330 mg/m3 | 2,000 mg/m3 |
| carbon black | Carbon black | 9 mg/m3 | 99 mg/m3 | 590 mg/m3 |

| Ingredient | Original IDLH | Revised IDLH |
|---|---|---------------|
| alkyd resin - unregulated | Not Available | Not Available |
| solvent naphtha petroleum, light aliphatic | 2500 mg/m3 | Not Available |
| naphtha, petroleum, hydrodesulfurised heavy | 20000 mg/m3 / 1,100 [LEL] ppm / 1,000 [LEL] ppm | Not Available |

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| | | |
|---------------------|---------------|---------------|
| pigments, including | Not Available | Not Available |
| titanium dioxide | 5000 mg/m3 | Not Available |
| carbon black | 1750 mg/m3 | Not Available |
| additives | Not Available | Not Available |

Exposure controls

| | |
|---|---|
| Appropriate engineering controls | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> |
| Personal protection |  |
| Eye and face protection | <ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ Chemical goggles. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. |
| Skin protection | See Hand protection below |
| Hands/feet protection | <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber |
| Body protection | See Other protection below |
| Other protection | <ul style="list-style-type: none"> ▶ Overalls. ▶ PVC Apron. ▶ PVC protective suit may be required if exposure severe. ▶ Eyewash unit. ▶ Ensure there is ready access to a safety shower. |

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|-------------------------|
| up to 10 x ES | A-AUS P3 | - | A-PAPR-AUS / Class 1 P3 |
| up to 50 x ES | - | A-AUS / Class 1 P3 | - |
| up to 100 x ES | - | A-2 P3 | A-PAPR-2 P3 ^ |

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Wattyl All Purpose Enamel MCRLF (Lead Free Colours)

Information on basic physical and chemical properties

| | | | |
|---|--|--|----------------|
| Appearance | Coloured highly flammable liquid with a strong solvent odour; not miscible with water. | | |
| Physical state | Liquid | Relative density (Water = 1) | 0.9-1.2 |
| 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 | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | 47-178 | Molecular weight (g/mol) | Not Applicable |
| Flash point (°C) | -30 | 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) | Not Available |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available |
| Solubility in water (g/L) | Immiscible | pH as a solution (1%) | Not Applicable |
| Vapour density (Air = 1) | >1 | VOC g/L | 179.1 |

SECTION 10 STABILITY AND REACTIVITY

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

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

| | |
|---------------------|---|
| Inhaled | <p>Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p> <p>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.</p> <p>If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.</p> <p>The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.</p> <p>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.</p> |
| Ingestion | <p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)</p> <p>Ingestion of petroleum hydrocarbons can irritate the pharynx, oesophagus, stomach and small intestine, and cause swellings and ulcers of the mucous. Symptoms include a burning mouth and throat; larger amounts can cause nausea and vomiting, narcosis, weakness, dizziness, slow and shallow breathing, abdominal swelling, unconsciousness and convulsions.</p> |
| Skin Contact | <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> |

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| Eye | Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn). |
| Chronic | <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>Harmful: danger of serious damage to health by prolonged exposure through inhalation.</p> <p>This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.</p> <p>Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.</p> <p>Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother.</p> <p>Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]</p> <p>Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin.</p> <p>There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.</p> |

| | | |
|--|-----------------|-------------------|
| Wattyl All Purpose Enamel MCRLF (Lead Free Colours) | TOXICITY | IRRITATION |
| | Not Available | Not Available |

| | | |
|----------------------------------|-----------------|-------------------|
| alkyd resin - unregulated | TOXICITY | IRRITATION |
| | Not Available | Not Available |

| | | |
|---|--|-------------------|
| solvent naphtha petroleum, light aliphatic | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >1900 mg/kg ^[1] | Not Available |
| | Oral (rat) LD50: >4500 mg/kg ^[1] | |

| | | |
|--|--|-------------------|
| naphtha, petroleum, hydrodesulfurised heavy | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >1900 mg/kg ^[1] | Not Available |
| | Dermal (rabbit) LD50: >1900 mg/kg ^[1] | |
| | Dermal (rabbit) LD50: >1900 mg/kg ^[1] | |
| | Dermal (rabbit) LD50: >1900 mg/kg ^[1] | |
| | dermal (rat) LD50: 28000 mg/kg ^[2] | |
| | Inhalation (rat) LC50: >2796.8052 mg/l/8H ^[2] | |
| | Inhalation (rat) LC50: 3396.1206 mg/l/4H ^[2] | |
| | Inhalation (rat) LC50: 61 mg/l/4H ^[2] | |
| | Oral (rat) LD50: >4300 mg/kg ^[2] | |
| | Oral (rat) LD50: >4500 mg/kg ^[1] | |
| | Oral (rat) LD50: >4500 mg/kg ^[1] | |
| | Oral (rat) LD50: >4500 mg/kg ^[1] | |

| | | |
|-------------------------|--|---------------------------------------|
| titanium dioxide | TOXICITY | IRRITATION |
| | Inhalation (rat) LC50: >2.28 mg/l/4 h ^[1] | Skin (human): 0.3 mg /3D (int)-mild * |
| | Oral (rat) LD50: >2000 mg/kg ^[1] | |

| | | |
|---------------------|--|-------------------|
| carbon black | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >3000 mg/kg ^[2] | Not Available |
| | Oral (rat) LD50: >10000 mg/kg ^[1] | |

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




| | |
|----------------------------------|---|
| ALKYD RESIN - UNREGULATED | "alkyd resin" describes a generic insoluble polymer which has no residual hazardous reactants and is not absorbed in the gastro-intestinal tract. No acute or chronic human exposure / toxicity data available. Almost always in solvent solution - |
|----------------------------------|---|

Wattyl All Purpose Enamel MCRLF (Lead Free Colours)

| | |
|---|--|
| | the hazard is from the solvent. |
| SOLVENT NAPHTHA PETROLEUM, LIGHT ALIPHATIC | <p>For Low Boiling Point Naphthas (LBPNs):</p> <p>Acute toxicity: LBPNs generally have low acute toxicity by the oral (median lethal dose [LD50] in rats > 2000 mg/kg-bw), inhalation (LD50 in rats > 5000 mg/m3) and dermal (LD50 in rabbits > 2000 mg/kg-bw) routes of exposure Most LBPNs are mild to moderate eye and skin irritants in rabbits, with the exception of heavy catalytic cracked and heavy catalytic reformed naphthas, which have higher primary skin irritation indices.</p> <p>Sensitisation: LBPNs do not appear to be skin sensitizers, but a poor response in the positive control was also noted in these studies</p> <p>Repeat dose toxicity: The lowest-observed-adverse-effect concentration (LOAEC) and lowest-observed-adverse-effect level (LOAEL) values identified following short-term (2-89 days) and subchronic (greater than 90 days) exposure to the LBPN substances. These values were determined for a variety of endpoints after considering the toxicity data for all LBPNs in the group. Most of the studies were carried out by the inhalation route of exposure. Renal effects, including increased kidney weight, renal lesions (renal tubule dilation, necrosis) and hyaline droplet formation, observed in male rats exposed orally or by inhalation to most LBPNs, were considered species- and sex-specific. These effects were determined to be due to a mechanism of action not relevant to humans -specifically, the interaction between hydrocarbon metabolites and alpha-2-microglobulin, an enzyme not produced in substantial amounts in female rats, mice and other species, including humans. The resulting nephrotoxicity and subsequent carcinogenesis in male rats were therefore not considered in deriving LOAEC/LOAEL values.</p> <p>Only a limited number of studies of short-term and subchronic duration were identified for site-restricted LBPNs. For petroleum: This product contains benzene, which can cause acute myeloid leukaemia, and n-hexane, which can be metabolized to compounds which are toxic to the nervous system. This product contains toluene, and animal studies suggest high concentrations of toluene lead to hearing loss. This product contains ethyl benzene and naphthalene, from which animal testing shows evidence of tumour formation.</p> <p>Cancer-causing potential: Animal testing shows inhaling petroleum causes tumours of the liver and kidney; these are however not considered to be relevant in humans.</p> <p>Mutation-causing potential: Most studies involving gasoline have returned negative results regarding the potential to cause mutations, including all recent studies in living human subjects (such as in petrol service station attendants).</p> <p>Reproductive toxicity: Animal studies show that high 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.</p> |
| TITANIUM DIOXIDE | <p>The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>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.</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>* IUCLID</p> |
| CARBON BLACK | Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported |
| ALKYD RESIN - UNREGULATED & NAPHTHA, PETROLEUM, HYDRODESULFURISED HEAVY & CARBON BLACK | No significant acute toxicological data identified in literature search. |
| SOLVENT NAPHTHA PETROLEUM, LIGHT ALIPHATIC & NAPHTHA, PETROLEUM, HYDRODESULFURISED HEAVY | <p>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.</p> <p>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.</p> |
| TITANIUM DIOXIDE & CARBON BLACK | WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans. |

| | | | |
|--|---|-------------------------------------|---|
| Acute Toxicity | ☒ | Carcinogenicity | ☒ |
| Skin Irritation/Corrosion | ☒ | Reproductivity | ✔ |
| Serious Eye Damage/Irritation | ☒ | STOT - Single Exposure | ✔ |
| Respiratory or Skin sensitisation | ☒ | STOT - Repeated Exposure | ✔ |
| Mutagenicity | ☒ | Aspiration Hazard | ✔ |

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Legend:  - Data available but does not meet the criteria for classification
 - Data available to make classification
 - Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

| | | | | | |
|--|-----------------|-------------------------------|-------------------------------|---------------|---------------|
| Wattyl All Purpose Enamel MCRLF (Lead Free Colours) | ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
| | Not Available | Not Available | Not Available | Not Available | Not Available |
| alkyd resin - unregulated | ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
| | LC50 | 96 | Fish | >560mg/L | 4 |
| solvent naphtha petroleum, light aliphatic | ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
| | EC50 | 72 | Algae or other aquatic plants | =6.5mg/L | 1 |
| | NOEC | 72 | Algae or other aquatic plants | <0.1mg/L | 1 |
| naphtha, petroleum, hydrodesulfurised heavy | ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
| | EC50 | 72 | Algae or other aquatic plants | =13mg/L | 1 |
| | NOEC | 72 | Algae or other aquatic plants | =0.1mg/L | 1 |
| | EC50 | 48 | Crustacea | >100mg/L | 1 |
| | EC50 | 96 | Algae or other aquatic plants | =450mg/L | 1 |
| | EC50 | 72 | Algae or other aquatic plants | =6.5mg/L | 1 |
| | NOEC | 72 | Algae or other aquatic plants | <0.1mg/L | 1 |
| | LC50 | 96 | Fish | 0.00746mg/L | 4 |
| | EC50 | 48 | Crustacea | 0.058mg/L | 4 |
| | BCF | 96 | Fish | 0.2mg/L | 4 |
| | NOEC | 168 | Crustacea | <=0.05mg/L | 4 |
| | LC50 | 96 | Fish | 8.8mg/L | 4 |
| | EC50 | 48 | Crustacea | 3.7mg/L | 4 |
| | EC50 | 72 | Algae or other aquatic plants | =6.5mg/L | 1 |
| | NOEC | 72 | Algae or other aquatic plants | <0.1mg/L | 1 |
| | EC50 | 72 | Algae or other aquatic plants | =6.5mg/L | 1 |
| NOEC | 72 | Algae or other aquatic plants | <0.1mg/L | 1 | |
| titanium dioxide | ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
| | LC50 | 96 | Fish | 155mg/L | 2 |
| | EC50 | 48 | Crustacea | >10mg/L | 2 |
| | EC50 | 72 | Algae or other aquatic plants | 5.83mg/L | 4 |
| | EC20 | 72 | Algae or other aquatic plants | 1.81mg/L | 4 |
| | NOEC | 336 | Fish | 0.089mg/L | 4 |
| carbon black | ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
| | LC50 | 96 | Fish | =1000mg/L | 1 |
| | NOEC | 96 | Fish | =1000mg/L | 1 |

Legend: *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

For Hydrocarbons: log Kow 1. BCF~10.

BCF 20-200. For C5 and greater alkanes: log Kow 3-4.5. BCF 100-1,500.

For Alkanes, Benzene, Toluene, Ethylbenzene, Xylene (BTEX):

Environmental Fate: Microbes found in many natural settings (e.g., soils, groundwater, ponds) have been shown to be capable of degrading organic compounds.

Drinking Water Standards: hydrocarbon total: 10 ug/l (UK max.).

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

Continued...

Wattyl All Purpose Enamel MCRLF (Lead Free Colours)

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

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

DO NOT discharge into sewer or waterways.

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|------------------|-------------------------|------------------|
| titanium dioxide | HIGH | HIGH |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|------------------|-----------------|
| titanium dioxide | LOW (BCF = 10) |

Mobility in soil

| Ingredient | Mobility |
|------------------|-------------------|
| titanium dioxide | LOW (KOC = 23.74) |

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

| | |
|-------------------------------------|--|
| Product / Packaging disposal | <ul style="list-style-type: none"> ▶ Recycle wherever possible. ▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material). ▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed. |
|-------------------------------------|--|

SECTION 14 TRANSPORT INFORMATION

Labels Required

| | |
|---|------|
|  | |
| Marine Pollutant | NO |
| HAZCHEM | •3YE |

Land transport (ADG)

| | | | | | |
|-------------------------------------|--|--------------------|---------|------------------|----------------|
| UN number | 1263 | | | | |
| UN proper shipping name | PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound) | | | | |
| Transport hazard class(es) | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-right: 1px dashed black; padding-right: 5px;">Class</td> <td style="padding-left: 5px;">3</td> </tr> <tr> <td style="border-right: 1px dashed black; padding-right: 5px;">Subrisk</td> <td style="padding-left: 5px;">Not Applicable</td> </tr> </table> | Class | 3 | Subrisk | Not Applicable |
| Class | 3 | | | | |
| Subrisk | Not Applicable | | | | |
| Packing group | II | | | | |
| Environmental hazard | Not Applicable | | | | |
| Special precautions for user | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-right: 1px dashed black; padding-right: 5px;">Special provisions</td> <td style="padding-left: 5px;">163 367</td> </tr> <tr> <td style="border-right: 1px dashed black; padding-right: 5px;">Limited quantity</td> <td style="padding-left: 5px;">5 L</td> </tr> </table> | Special provisions | 163 367 | Limited quantity | 5 L |
| Special provisions | 163 367 | | | | |
| Limited quantity | 5 L | | | | |

Air transport (ICAO-IATA / DGR)

| | |
|--------------------------------|---|
| UN number | 1263 |
| UN proper shipping name | Paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base); Paint related material (including paint thinning or reducing compounds) |

Wattyl All Purpose Enamel MCRLF (Lead Free Colours)

| | | |
|-------------------------------------|---|----------------|
| Transport hazard class(es) | ICAO/IATA Class | 3 |
| | ICAO / IATA Subrisk | Not Applicable |
| | ERG Code | 3L |
| Packing group | II | |
| Environmental hazard | Not Applicable | |
| Special precautions for user | Special provisions | A3 A72 A192 |
| | Cargo Only Packing Instructions | 364 |
| | Cargo Only Maximum Qty / Pack | 60 L |
| | Passenger and Cargo Packing Instructions | 353 |
| | Passenger and Cargo Maximum Qty / Pack | 5 L |
| | Passenger and Cargo Limited Quantity Packing Instructions | Y341 |
| | Passenger and Cargo Limited Maximum Qty / Pack | 1 L |

Sea transport (IMDG-Code / GGVSee)

| | | |
|-------------------------------------|--|----------------|
| UN number | 1263 | |
| UN proper shipping name | PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound) | |
| Transport hazard class(es) | IMDG Class | 3 |
| | IMDG Subrisk | Not Applicable |
| Packing group | II | |
| Environmental hazard | Not Applicable | |
| Special precautions for user | EMS Number | F-E , S-E |
| | Special provisions | 163 367 |
| | Limited Quantities | 5 L |

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

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

ALKYD RESIN - UNREGULATED(63148-69-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

SOLVENT NAPHTHA PETROLEUM, LIGHT ALIPHATIC(64742-89-8.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft

NAPHTHA, PETROLEUM, HYDRODESULFURISED HEAVY(64742-82-1.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft

TITANIUM DIOXIDE(13463-67-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

CARBON BLACK(1333-86-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Continued...

Australia Exposure Standards
Australia Inventory of Chemical Substances (AICS)

International Agency for Research on Cancer (IARC) - Agents Classified
by the IARC Monographs

National Inventory Status

| National Inventory | Status |
|-------------------------------|---|
| Australia - AICS | Y |
| Canada - DSL | N (alkyd resin - unregulated) |
| Canada - NDSL | N (alkyd resin - unregulated; solvent naphtha petroleum, light aliphatic; naphtha, petroleum, hydrodesulfurised heavy; carbon black) |
| China - IECSC | Y |
| Europe - EINEC / ELINCS / NLP | N (alkyd resin - unregulated) |
| Japan - ENCS | N (alkyd resin - unregulated; solvent naphtha petroleum, light aliphatic) |
| Korea - KECI | N (alkyd resin - unregulated) |
| New Zealand - NZIoC | Y |
| Philippines - PICCS | Y |
| USA - TSCA | N (alkyd resin - unregulated) |
| Legend: | Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets) |

SECTION 16 OTHER INFORMATION

| | |
|----------------------|---------------|
| Revision Date | 01/06/2016 |
| Initial Date | Not Available |

Other information

Ingredients with multiple cas numbers

| Name | CAS No |
|---|---|
| naphtha, petroleum, hydrodesulfurised heavy | 64742-82-1., 64741-92-0., 8052-41-3., 1030262-12-4., 8032-32-4., 8030-30-6., 64742-88-7., 64742-89-8., 8002-05-9., 61789-95-5., 64742-48-9., 101795-02-2., 8031-06-9., 8030-31-7., 50813-73-5., 54847-97-1., 121448-83-7., 8031-38-7., 8031-39-8. |
| titanium dioxide | 13463-67-7, 1317-70-0, 1317-80-2, 12188-41-9, 1309-63-3, 100292-32-8, 101239-53-6, 116788-85-3, 12000-59-8, 12701-76-7, 12767-65-6, 12789-63-8, 1344-29-2, 185323-71-1, 185828-91-5, 188357-76-8, 188357-79-1, 195740-11-5, 221548-98-7, 224963-00-2, 246178-32-5, 252962-41-7, 37230-92-5, 37230-94-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0, 39379-02-7, 416845-43-7, 494848-07-6, 494848-23-6, 494851-77-3, 494851-98-8, 55068-84-3, 55068-85-4, 552316-51-5, 62338-64-1, 767341-00-4, 97929-50-5, 98084-96-9 |

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
 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

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