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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

Wattyl Thinner L780

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)

PRODUCT USE

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. Used according to manufacturer's directions.

SUPPLIER

Company: Valspar Australia Pty Ltd Pty Limited Address: Level 4, 2 Burbank Place Baulkham Hills NSW, 2153 Australia Telephone: +61 2 8867 3333 Emergency Tel:**+61 1800 039 008** Emergency Tel:**+61 3 9573 3112** Fax: +61 2 8867 3344

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

RISK	
Risk Codes	Risk Phrases
R11	Highly flammable.
R20/21	 Harmful by inhalation and in contact with skin.
R38	Irritating to skin.
R41	 Risk of serious damage to eyes.
R62(3)	Possible risk of impaired fertility.
R63(3)	Possible risk of harm to the unborn child.
R65	 HARMFUL- May cause lung damage if swallowed.
R66	 Repeated exposure may cause skin dryness and cracking.
R67	 Vapours may cause drowsiness and dizziness.
R22?	 Ingestion may produce health damage*.
R33?	 Cumulative effects may result following exposure*.
R37?	 May produce discomfort of the respiratory system*.
R40(3)?	 Limited evidence of a carcinogenic effect*.
SAFETY	
Safety Codes	Safety Phrases
Safety Codes S16	Keep away from sources of ignition. No smoking.
Safety Codes S16 S23	 Keep away from sources of ignition. No smoking. Do not breathe gas/fumes/vapour/spray.
Safety Codes S16 S23 S24	 Keep away from sources of ignition. No smoking. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin.
Safety Codes S16 S23 S24 S25	 Keep away from sources of ignition. No smoking. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. Avoid contact with eyes.
Safety Codes S16 S23 S24 S25 S36	 Keep away from sources of ignition. No smoking. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. Avoid contact with eyes. Wear suitable protective clothing.
Safety Codes S16 S23 S24 S25 S36 S37	 Keep away from sources of ignition. No smoking. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. Avoid contact with eyes. Wear suitable protective clothing. Wear suitable gloves.
Safety Codes S16 S23 S24 S25 S36 S37 S39	 Keep away from sources of ignition. No smoking. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. Avoid contact with eyes. Wear suitable protective clothing. Wear suitable gloves. Wear eye/face protection.
Safety Codes S16 S23 S24 S25 S36 S37 S39 S51	 Keep away from sources of ignition. No smoking. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. Avoid contact with eyes. Wear suitable protective clothing. Wear suitable gloves. Wear eye/face protection. Use only in well ventilated areas.
Safety Codes S16 S23 S24 S25 S36 S37 S39 S51 S09	 Keep away from sources of ignition. No smoking. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. Avoid contact with eyes. Wear suitable protective clothing. Wear suitable gloves. Wear eye/face protection. Use only in well ventilated areas. Keep container in a well ventilated place.
Safety Codes S16 S23 S24 S25 S36 S37 S39 S51 S09 S53	 Keep away from sources of ignition. No smoking. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. Avoid contact with eyes. Wear suitable protective clothing. Wear suitable gloves. Wear eye/face protection. Use only in well ventilated areas. Keep container in a well ventilated place. Avoid exposure - obtain special instructions before use.
Safety Codes S16 S23 S24 S25 S36 S37 S39 S51 S09	 Keep away from sources of ignition. No smoking. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. Avoid contact with eyes. Wear suitable protective clothing. Wear suitable gloves. Wear eye/face protection. Use only in well ventilated areas. Keep container in a well ventilated place.

Wattyl Thinner L780

Chemwatch Material Safety Data Sheet Issue Date: 16-Dec-2013 X9317SP

Hazard Alert Code: HIGH

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S401	 To clean the floor and all objects contaminated by this material, use water and detergent.
S07	Keep container tightly closed.
S13	 Keep away from food, drink and animal feeding stuffs.
S26	 In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
S46	 If swallowed, IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).
S60	This material and its container must be disposed of as hazardous waste.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
solvents		>60
toluene	108-88-3	10-30
solvent naphtha petroleum, light aliphatic	64742-89-8.	10-30
cyclohexanone	108-94-1	1-10
n- butanol	71-36-3	1-10

Section 4 - FIRST AID MEASURES

SWALLOWED

- 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.
- · Avoid giving milk or oils.
- Avoid giving alcohol.

EYE

- If this product comes in contact with the eyes:
- Immediately hold eyelids apart and flush the eye continuously with 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.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.

SKIN

- If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- · Seek medical attention in event of irritation.

INHALED

- 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.

NOTES TO PHYSICIAN

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically.

for simple esters:

BASIC TREATMENT

• Watch for signs of respiratory insufficiency and assist ventilation as necessary.

[•] Establish a patent airway with suction where necessary.

Hazard Alert Code: HIGH

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- Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- Monitor and treat, where necessary, for pulmonary oedema .
- 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.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Alcohol stable foam.
- Dry chemical powder.
- · BCF (where regulations permit).
- Carbon dioxide.

Do not use a water jet to fight fire.

FIRE FIGHTING

- 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.

FIRE/EXPLOSION HAZARD

- · 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.
- Combustion products include: carbon dioxide (CO2), other pyrolysis products typical of burning organic material.

Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.

FIRE INCOMPATIBILITY

 Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM

•3YE

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- 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.

MAJOR SPILLS

- 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.

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

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Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

• 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.
- Contains low boiling substance:

Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.

- · Check for bulging containers.
- · Vent periodically
- Always release caps or seals slowly to ensure slow dissipation of vapours.
- DO NOT allow clothing wet with material to stay in contact with skin.
- Electrostatic discharge may be generated during pumping this may result in fire.
- Ensure electrical continuity by bonding and grounding (earthing) all equipment.
- Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec).
- Avoid splash filling.
- 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.

SUITABLE CONTAINER

- 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.

STORAGE INCOMPATIBILITY

· Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS

- · 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.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS Source	Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Peak ppm	Peak mg/m³	TWA F/CC	Notes
Australia	Wattyl Thinner	80		150	655				
Exposure	L780 (Xylene (o-								
Standards	, m- , p- isomers))								
Australia	toluene	50		150	574				
Exposure	(Toluene)								
Standards									
Australia	cyclohexanone	25							
Exposure	(Cyclohexanone)								
Standards									
Australia	n- butanol (n-	50							
Exposure Standards	Butyl alcohol)								

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ODOUR SAFETY FACTOR (OSF)

OSF=4 (XYLENE)

Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description		
A	550	Over 90% of exposed individuals are aware by smell that		
		the Exposure Standard (TLV- TWA for example) is being		
		reached, even when distracted by working activities		
В	26- 550	As " A" for 50- 90% of persons being distracted		
С	1- 26	As " A" for less than 50% of persons being distracted		
D	0.18- 1	10- 50% of persons aware of being tested perceive by		
		smell that the Exposure Standard is being reached		
E	<0.18	As " D" for less than 10% of persons aware of being		
		tested		

MATERIAL DATA

SOLVENT NAPHTHA PETROLEUM, LIGHT ALIPHATIC:

TOLUENE:

WATTYL THINNER L780:

For toluene:

Odour Threshold Value: 0.16-6.7 (detection), 1.9-69 (recognition)

NOTE: Detector tubes measuring in excess of 5 ppm, are available.

High concentrations of toluene in the air produce depression of the central nervous system (CNS) in humans.

SOLVENT NAPHTHA PETROLEUM, LIGHT ALIPHATIC:

WATTYL THINNER L780:

for benzene

Odour Threshold Value: 34 ppm (detection), 97 ppm (recognition)

NOTE: Detector tubes for benzene, measuring in excess of 0.5 ppm, are commercially available. The relative quality of epidemiological data and quantitative health risk assessments related to documented and theoretical leukaemic deaths constitute the basis of the TLV-recommendation.<</

N-BUTANOL:

WATTYL THINNER L780:

For n-butanol:

Odour Threshold Value: 0.12-3.4 ppm (detection), 1.0-3.5 ppm (recognition)

NOTE: Detector tubes for n-butanol, measuring in excess of 5 ppm are commercially available.

Exposure at or below the TLV-TWA is thought to provide protection against hearing loss due to vestibular and auditory nerve damage in younger workers and to protect against the significant risk of headache and irritation.

25 ppm may produce mild irritation of the respiratory tract 50 ppm may produce headache and vertigo.

Higher concentrations may produce marked irritation, sore throat, coughing, nausea, shortness of breath, pulmonary injury and central nervous system depression characterised by headache, dizziness, dullness and drowsiness.

CYCLOHEXANONE:

WATTYL THINNER L780:

For cyclohexanone

Odour Threshold Value: 0.12 ppm (detection and recognition)

Exposure at the TLV-TWA produces minimal irritation and this limit is significantly lower than the concentration reported to

just induce demonstrable changes in the liver and kidneys of rabbits repeatedly exposed to the substance (190 ppm).

Odour Safety Factor (OSF)

OSF=28 (CYCLOHEXANONE).

CYCLOHEXANONE:

N-BUTANOL:

Exposed individuals are reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Odour Safety Factor (OSF) is determined to fall into either Class A or B. The Odour Safety Factor (OSF) is defined as: OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm Classification into classes follows:

Class A	OSF 550	Description Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV- TWA for example) is being reached, even when distracted by working activities
В	26- 550	As " A" for 50- 90% of persons being distracted
С	1- 26	As " A" for less than 50% of
D	0.18- 1	persons being distracted 10- 50% of persons aware of being tested perceive by smell that the Exposure Standard is
E	<0.18	being reached As " D" for less than 10% of persons aware of being tested

WATTYL THINNER L780:

for diacetone alcohol:

Odour Threshold Value: 0.27 ppm (detection), 1.1 ppm (recognition)

The TLV-TWA is thought to be protective against eye, nose and throat irritation. Eye irritation appeared in the majority of subjects exposed for 15 minutes to 100 ppm.

For ethyl acetate:

Odour Threshold Value: 6.4-50 ppm (detection), 13.3-75 ppm (recognition)

The TLV-TWA provides a significant margin of safety from the standpoint of adverse health effects. Unacclimated subjects found the odour objectionably strong at 200 ppm.

signs or symptoms.

Odour Threshold Value: 3.6 ppm (detection), 699 ppm (recognition)

Saturation vapour concentration: 237000 ppm @ 20 C

NOTE: Detector tubes measuring in excess of 40 ppm, are available.

Exposure at or below the recommended TLV-TWA is thought to protect the worker against mild irritation associated with brief exposures and the bioaccumulation, chronic irritation of the respiratory tract and headaches associated with long-term acetone exposures.

for xylenes:

IDLH Level: 900 ppm

Odour Threshold Value: 20 ppm (detection), 40 ppm (recognition)

NOTE: Detector tubes for o-xylene, measuring in excess of 10 ppm, are available commercially. (m-xylene and p-xylene give almost the same response).<</>

TOLUENE:

Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard.

SOLVENT NAPHTHA PETROLEUM, LIGHT ALIPHATIC:

Odour threshold: 0.25 ppm.

The TLV-TWA is protective against ocular and upper respiratory tract irritation and is recommended for bulk handling of gasoline based on calculations of hydrocarbon content of gasoline vapour.

for ethyl benzene:

Odour Threshold Value: 0.46-0.60 ppm

NOTE: Detector tubes for ethylbenzene, measuring in excess of 30 ppm, are commercially available.

Ethyl benzene produces irritation of the skin and mucous membranes and appears to produce acute and chronic effects on the central nervous system.

For n-hexane:

Odour Threshold Value: 65 ppm

NOTE: Detector tubes for n-hexane, measuring in excess of 100 ppm, are available commercially.

Occupational polyneuropathy may result from exposures as low as 500 ppm (as hexane), whilst nearly continuous exposures of 250 ppm have caused neurotoxic effects in animals.

Concurrent exposure to chemicals (including MEK) and drugs which induce hepatic liver oxidative metabolism can reduce the time

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for neuropathy to appear. CEL TWA: 200 ppm, 800 mg/m3 [SHELL]

PERSONAL PROTECTION

RESPIRATOR

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

EYE

· 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 lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

HANDS/FEET

- Wear chemical protective gloves, e.g. PVC.
- · Wear safety footwear or safety gumboots, e.g. Rubber.
- For esters:

• Do NOT use natural rubber, butyl rubber, EPDM or polystyrene-containing materials.

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.

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.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:

OTHER

- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.
- Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
- For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets), non sparking safety footwear.

ENGINEERING CONTROLS

■ CARE: Use of a quantity of this material in confined space or poorly ventilated area, where rapid build up of concentrated atmosphere may occur, could require increased ventilation and/or protective gear.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Clear colourless highly flammable liquid with a strong solvent odour; not miscible with water

PHYSICAL PROPERTIES

Liquid. Does not mix with water. Floats on water.

Hazard Alert Code: HIGH

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State	Liquid	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Available
Boiling Range (°C)	47 (initial)	Solubility in water (g/L)	Immiscible
Flash Point (°C)	<- 30	pH (1% solution)	Not Applicable
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not Applicable
Autoignition Temp (°C)	Not Available	Vapour Pressure (kPa)	Not Available
Upper Explosive Limit (%)	9.0	Specific Gravity (water=1)	0.85- 0.90
Lower Explosive Limit (%)	1.1	Relative Vapour Density	>1
		(air=1)	
Volatile Component (%vol)	100	Evaporation Rate	Not Available

Section 10 - STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY

Presence of incompatible materials.

Product is considered stable.

Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733).

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

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. Damage to the heart muscle can produce heart beat irregularities, ventricular fibrillation (fatal) and ECG changes. The central nervous system can be depressed. Light species can cause a sharp tingling of the tongue and cause loss of sensation there. Aspiration can cause cough, gagging, pneumonia with swelling and bleeding.

EYE

If applied to the eyes, this material causes severe eye damage.

Direct eye contact with petroleum hydrocarbons can be painful, and the corneal epithelium may be temporarily damaged. Aromatic species can cause irritation and excessive tear secretion.

SKIN

Skin contact with the material may be harmful; systemic effects may result following absorption.

The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.

Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.

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

Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation.

INHALED

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 alkylbenzenes is best described by central nervous system depression. As a rule, these compounds may also act as general anaesthetics.<</>

Inhalation hazard is increased at higher temperatures.

Inhaling high concentrations of mixed hydrocarbons can cause narcosis, with nausea, vomiting and lightheadedness. Low molecular weight (C2-C12) hydrocarbons can irritate mucous membranes and cause incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor. Massive exposures can lead to severe central nervous system depression, deep coma and death. Convulsions can occur due to brain irritation and/or lack of oxygen. Permanent scarring may occur, with epileptic seizures and brain bleeds occurring months after exposure. Respiratory system effects include inflammation of the lungs

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with oedema and bleeding. Lighter species mainly cause kidney and nerve damage; the heavier paraffins and olefins are especially irritant to the respiratory system. Alkenes produce pulmonary oedema at high concentrations. Liquid paraffins may produce sensation loss and depressant actions leading to weakness, dizziness, slow and shallow respiration, unconsciousness, convulsions and death. C5-7 paraffins may also produce multiple nerve damage. Aromatic hydrocarbons accumulate in lipid rich tissues (typically the brain, spinal cord and peripheral nerves) and may produce functional impairment manifested by nonspecific symptoms such as nausea, weakness, fatigue, vertigo; severe exposures may produce inebriation or unconsciousness. Many of the petroleum hydrocarbons can sensitise the heart and may cause ventricular fibrillation, leading to death.

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.

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.

The main effects of simple esters are irritation, stupor and insensibility. Headache, drowsiness, dizziness, coma and behavioural changes may occur. Respiratory symptoms may include irritation, shortness of breath, rapid breathing, throat inflammation, bronchitis, lung inflammation and pulmonary oedema, sometimes delayed. Nausea, vomiting, diarrhoea and cramps are observed. Liver and kidney damage may result from massive exposures.

Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.

CHRONIC HEALTH EFFECTS

■ 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.

Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.

There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Intentional abuse (glue sniffing) or occupational exposure to toluene can result in chronic habituation. Chronic abuse has caused inco-ordination, tremors of the extremeties (due to widespread cerebrum withering), headache, abnormal speech, temporary memory loss, convulsions, coma, drowsiness, reduced colour perception, blindness, nystagmus (rapid, involuntary eye movements), hearing loss leading to deafness and mild dementia. Toluene addicts often display a range of disease phenomena in their nervous systems. Toluene abuse can cause kidney disease but occupational toluene exposures usually do not cause it. Chronic exposure to toluene can damage the heart and the blood, especially causing heartbeat irregularities. High concentrations of toluene can harm the unborn baby and the developing infant.

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. Chronic exposure to lighter hydrocarbons can cause nerve damage, peripheral neuropathy, bone marrow dysfunction and psychiatric disorders as well as damage the liver and kidneys.

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

TOXICITY AND IRRITATION

No significant acute toxicological data identified in literature search.

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.

CARCINOGEN				
toluene	Australia Exposure	Carcinogen	Sk	
	Standards	Category		
toluene	International	Group	3	Not classifiable
	Agency for			as to its
	Research on Cancer			carcinogenicity
	(IARC) - Agents			to humans
	Reviewed by the			
	IARC Monographs			
cyclohexanone	Australia Exposure	Carcinogen	Sk	
-	Standards	Category		
cyclohexanone	International	Group	3	Not classifiable
-	Agency for			as to its
	Research on Cancer			carcinogenicity
	(IARC) - Agents			to humans
	Reviewed by the			
	IARC Monographs			
n- butanol	Australia Exposure	Carcinogen	Sk	
	Standards	Category		

Wattyl Thinner L780

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toluene	Australia Exposure Standards - Skin	Notes	Sk
toluene	GESAMP/EHS Composite List - GESAMP Hazard	D1: skin irritation/corrosion	2
toluene	Profiles GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	1
cyclohexanone	Australia Exposure Standards - Skin	Notes	Sk
cyclohexanone	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	2
n- butanol	Australia Exposure Standards - Skin	Notes	Sk
n- butanol	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	2

Section 12 - ECOLOGICAL INFORMATION

This material and its container must be disposed of as hazardous waste.

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vailable
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IGH

Section 13 - DISPOSAL CONSIDERATIONS

• Containers may still present a chemical hazard/ danger when empty.

- Return to supplier for reuse/ recycling if possible.
- Otherwise:
- If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
- Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area.

- A Hierarchy of Controls seems to be common the user should investigate:
- Reduction.
- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- · Where in doubt contact the responsible authority.
- · 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 licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus (after admixture with suitable combustible material).
- · Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

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Section 14 - TRANSPORTATION INFORMATION

Labels Required: FLAMMABLE LIQUID

HAZCHEM:

•3YE (ADG7)

ADG7:

Class or Division:	3	Subsidiary Risk1:	None
UN No.:	1263	Packing Group:	II
Special Provision:	163 *	Limited Quantity:	5 L
Portable Tanks & Bulk	T4	Portable Tanks & Bulk	TP1 TP8
Containers - Instruction:		Containers - Special	TP28
		Provision:	
Packagings & IBCs - Packing	P001 IBC02	Packagings & IBCs - Special	PP1
Instruction:		Packing Provision:	
Name and Description: PAINT (including	g paint, lacquer	, enamel, stain,	
shellac, varnish, polish, liquid filler a	and liquid lacqu	ier base) or	
PAINT RELATED MATERIAL (inclu	ding paint thinr	ing or reducing	
compound) (see 3.2.5 for relevant [A	UST.] entries)		
Air Transport IATA:			
ICAO/IATA Class:	3	ICAO/IATA Subrisk:	None
UN/ID Number:	1263	Packing Group:	II
Special provisions:	A3A72		
Cargo Only			
Packing Instructions:	364	Maximum Qty/Pack:	60 L
Passenger and Cargo		Passenger and Cargo	

353

Y341

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)

Maximum Qty/Pack:

Maximum Qty/Pack:

Passenger and Cargo Limited Quantity

5 L

1 L

Maritime Transport IMDG:

Passenger and Cargo Limited Quantity

Packing Instructions:

Packing Instructions:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	1263	Packing Group:	II
EMS Number:	F-E,S-E	Special provisions:	163
Limited Quantities:	5 L		

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)

Section 15 - REGULATORY INFORMATION

Indications of Danger:

- F Highly Flammable
- Xn Harmful

POISONS SCHEDULE

REGULATIONS

Wattyl Thinner L780 (CAS:) is found on the following regulatory lists;

"Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - organic compounds)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm - Domestic water supply quality", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "Australia Exposure Standards", "Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "Australia National Pollutant Inventory", "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

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(SUSMP) - Appendix I", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "IMO Provisional Categorization of Liquid Substances - List 3: (Tradenamed) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards", "OECD List of High Production Volume (HPV) Chemicals", "WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water"

Regulations for ingredients

toluene (CAS: 108-88-3) is found on the following regulatory lists;

"Acros Transport Information", "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (AQUA/1 to 6 - non-pesticide anthropogenic organics)", "Australia - Australian Capital Territory -Environment Protection Regulation: Ambient environmental standards (Domestic water supply - organic compounds)", "Australia -Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm - Domestic water supply quality", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (Aquatic habitat)", "Australia Customs (Prohibited Exports) Regulations 1958 - Schedule 9 Precursor substances - Part 2", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "Australia Exposure Standards", "Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "Australia Hazardous Substances Information System - Consolidated Lists", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Illicit Drug Reagents/Essential Chemicals - Category III", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "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) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix I", "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", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 7", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Fragrance Association (IFRA) Standards Prohibited", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR List of Chemicals for Priority Action", "Sigma-AldrichTransport Information", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments", "United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances -Table II", "United Nations List of Precursors and Chemicals Frequently used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control (Red List) - Table II", "WHO Guidelines for Drinking-water Quality -Guideline values for chemicals that are of health significance in drinking-water"

solvent naphtha petroleum, light aliphatic (CAS: 64742-89-8) is found on the following regulatory lists;

"Acros Transport Information", "Australia Exposure Standards", "Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "Australia Hazardous Substances Information System - Consolidated Lists", "Australia High Volume Industrial Chemical List (HVICL)", "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) - Appendix E (Part 2)", "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", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Chemical Secretariat (ChemSec) SIN List (*Substitute It Now!)", "International Council of Chemical Associations (ICCA) - High Production Volume List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR List of Chemicals for Priority Action", "OSPAR National List of Candidates for Substitution – Norway", "Sigma-AldrichTransport Information"

cyclohexanone (CAS: 108-94-1) is found on the following regulatory lists;

"Australia - Victoria Occupational Health and Safety Regulations - Schedule 9: Materials at Major Hazard Facilities (And Their Threshold Quantity) Table 2", "Australia Exposure Standards", "Australia Hazardous Substances Information System - Consolidated Lists", "Australia Illicit Drug Reagents/Essential Chemicals - Category III", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Fragrance Association (IFRA) Survey: Transparency List", "IOFI Global Reference List of Chemically Defined Substances", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information"

n-butanol (CAS: 71-36-3) is found on the following regulatory lists;

"Acros Transport Information", "Australia Exposure Standards", "Australia Hazardous Substances Information System - Consolidated Lists", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia

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National Pollutant Inventory", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO IBC Code Chapter 18: List of products to which the Code does not apply", "IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "IOFI Global Reference List of Chemically Defined Substances", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – Norway", "Sigma-AldrichTransport Information"

Section 16 - 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. A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.

The (M)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.

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Issue Date: 16-Dec-2013 Print Date: 26-Aug-2015

This is the end of the MSDS.