# Wattyl Estapol Single Pack Gloss Range Valspar (a part of Sherwin-Williams)

Chemwatch: **5045-74**Version No: **7.1.1.1** 

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 2

Issue Date: **01/11/2019**Print Date: **16/03/2021**S.GHS.AUS.EN

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

#### **Product Identifier**

Product name	Wattyl Estapol Single Pack Gloss Range	
Chemical Name	Not Applicable	
Synonyms	Not Available	
Proper shipping name  PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT F MATERIAL (including paint thinning or reducing compound)		
Chemical formula	Not Applicable	
Other means of identification	Not Available	

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

Relevant identified uses	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.
	CONTAINS free organic isocyanate.

# 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	1 2 8867 3333	
Fax	+61 2 8867 3344	
Website	Not Available	
Email	Not Available	

# **Emergency telephone number**

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE	
Emergency telephone numbers	+61 2 9186 1132	
Other emergency telephone numbers	+61 1800 951 288	

Once connected and if the message is not in your prefered language then please dial 01

# **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

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Poisons Schedule	S6
Classification [1]	Flammable Liquid Category 3, Acute Toxicity (Inhalation) Category 3, Eye Irritation Category 2A, Skin Sensitizer Category 1, Respiratory Sensitizer Category 1, Specific target organ toxicity - single exposure Category 3 (narcotic effects), Chronic Aquatic Hazard Category 2
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

#### Label elements

Hazard pictogram(s)









Signal word

Danger

# Hazard statement(s)

H226	Flammable liquid and vapour.	
H331	Toxic if inhaled.	
H319	H319 Causes serious eye irritation.	
H317	May cause an allergic skin reaction.	
H334	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
H336 May cause drowsiness or dizziness.		
H411	Toxic to aquatic life with long lasting effects.	

# Precautionary statement(s) Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.		
P261	P261 Avoid breathing mist/vapours/spray.	
P271 Use only outdoors or in a well-ventilated area.		
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/		

# Precautionary statement(s) Response

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor/	
P370+P378 In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.  P302+P352 IF ON SKIN: Wash with plenty of water and soap.		

# 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 to authorised hazardous or special waste collection point in accordance with any local regulation.

# **SECTION 3 Composition / information on ingredients**

# Substances

See section below for composition of Mixtures

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# **Mixtures**

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CAS No	%[weight]	Name
9081-90-7	30-60	TDI/ trimethylolpropane prepolymer (solution)
26471-62-5	<0.3	toluene diisocyanate
64742-95-6.	30-60	naphtha petroleum, light aromatic solvent
Not Available	<10	additives
Not Available		contains less than 0.1% benzene

#### **SECTION 4 First aid measures**

#### Description of first aid measures

Eye Contact	If this product comes in contact with the eyes:  Nash 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    If skin contact occurs:		
Inhalation	<ul> <li>If fumes or combustion products are inhaled remove from contaminated area.</li> <li>Lay patient down. Keep warm and rested.</li> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>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.</li> <li>Transport to hospital, or doctor.</li> </ul>	
Ingestion	<ul> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Seek medical advice.</li> <li>Avoid giving milk or oils.</li> <li>Avoid giving alcohol.</li> </ul>	

# Indication of any immediate medical attention and special treatment needed

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. 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]

For sub-chronic and chronic exposures to isocyanates:

- This material may be a potent pulmonary sensitiser which causes bronchospasm even in patients without prior airway hyperreactivity.
- ▶ Clinical symptoms of exposure involve mucosal irritation of respiratory and gastrointestinal tracts.
- ▶ Conjunctival irritation, skin inflammation (erythema, pain vesiculation) and gastrointestinal disturbances occur soon after exposure.
- ▶ Pulmonary symptoms include cough, burning, substernal pain and dyspnoea.
- Some cross-sensitivity occurs between different isocyanates.
- Noncardiogenic pulmonary oedema and bronchospasm are the most serious consequences of exposure. Markedly symptomatic patients should receive oxygen, ventilatory support and an intravenous line.
- Treatment for asthma includes inhaled sympathomimetics (epinephrine [adrenalin], terbutaline) and steroids.
- Activated charcoal (1 g/kg) and a cathartic (sorbitol, magnesium citrate) may be useful for ingestion.

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- Mydriatics, systemic analgesics and topical antibiotics (Sulamyd) may be used for corneal abrasions.
- ▶ There is no effective therapy for sensitised workers.

[Ellenhorn and Barceloux; Medical Toxicology]

**NOTE:** Isocyanates cause airway restriction in naive individuals with the degree of response dependant on the concentration and duration of exposure. They induce smooth muscle contraction which leads to bronchoconstrictive episodes. Acute changes in lung function, such as decreased FEV1, may not represent sensitivity.

[Karol & Jin, Frontiers in Molecular Toxicology, pp 56-61, 1992]

Personnel who work with isocyanates, isocyanate prepolymers or polyisocyanates should have a pre-placement medical examination and periodic examinations thereafter, including a pulmonary function test. Anyone with a medical history of chronic respiratory disease, asthmatic or bronchial attacks, indications of allergic responses, recurrent eczema or sensitisation conditions of the skin should not handle or work with isocyanates. Anyone who develops chronic respiratory distress when working with isocyanates should be removed from exposure and examined by a physician. Further exposure must be avoided if a sensitivity to isocyanates or polyisocyanates has developed.

# **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

Fire	Incom	patibi	lity
•		P	,

 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> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>May be violently or explosively reactive.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> </ul>
Fire/Explosion Hazard	<ul> <li>Small quantities of water in contact with hot liquid may react violently with generation of a large volume of rapidly expanding hot sticky semi-solid foam.</li> <li>Presents additional hazard when fire fighting in a confined space.</li> <li>Cooling with flooding quantities of water reduces this risk.</li> <li>Water spray or fog may cause frothing and should be used in large quantities.</li> <li>Liquid and vapour are flammable.</li> <li>Moderate fire hazard when exposed to heat or flame.</li> <li>Vapour forms an explosive mixture with air.</li> <li>Moderate explosion hazard when exposed to heat or flame.</li> <li>Combustion products include:</li> <li>carbon dioxide (CO2)</li> <li>isocyanates</li> <li>and minor amounts of</li> <li>hydrogen cyanide</li> <li>nitrogen oxides (NOx)</li> <li>other pyrolysis products typical of burning organic material.</li> <li>Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.</li> <li>May emit clouds of acrid smoke</li> </ul>
HAZCHEM	•3Y

# **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

- ► 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.

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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 SDS.

#### **SECTION 7 Handling and storage**

#### Precautions for safe 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).</li>
- Avoid splash filling.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of overexposure occurs.
- ► Use in a well-ventilated area.
- ▶ Prevent concentration in hollows and sumps.

# Other information

Safe handling

- ► Store below 38 deg. C.
- ▶ Store in original containers in approved flammable liquid storage area.
- ▶ Store away from incompatible materials in a cool, dry, well-ventilated area.
- ▶ DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- ▶ No smoking, naked lights, heat or ignition sources.

# Conditions for safe storage, including any incompatibilities

#### **•**

- 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.

# Suitable container For low viscosity

- 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.

# Storage incompatibility

·Avoid reaction with water, alcohols and detergent solutions. Isocyanates are electrophiles, and as such they are reactive toward a variety of nucleophiles including alcohols, amines, and even water. Upon treatment with an alcohol, an isocyanate forms a urethane linkage. If a di-isocyanate is treated with a compound containing two or more hydroxyl groups, such as a diol or a polyol, polymer chains are formed, which are known as polyurethanes.

- Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous
- 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	TDI/ trimethylolpropane prepolymer (solution)	Isocyanates, all (as-NCO)	0.02 mg/m3	0.07 mg/m3	Not Available	Not Available
Australia Exposure Standards	toluene diisocyanate	Toluene-2,4-diisocyanate (TDI)	0.02 mg/m3	0.07 mg/m3	Not Available	Not Available

# **Emergency Limits**

Ingredient	TEEL-1	TEEL-2	TEEL-3
toluene diisocyanate	0.02 ppm	0.083 ppm	0.51 ppm
toluene diisocyanate	Not Available	Not Available	Not Available

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Ingredient	TEEL-1	TEEL-2	TEEL-3
toluene diisocyanate	Not Available	Not Available	Not Available
naphtha petroleum, light aromatic solvent	1,200 mg/m3	6,700 mg/m3	40,000 mg/m3

Ingredient	Original IDLH	Revised IDLH
TDI/ trimethylolpropane prepolymer (solution)	Not Available	Not Available
toluene diisocyanate	2.5 ppm	Not Available
naphtha petroleum, light aromatic solvent	Not Available	Not Available

#### **Exposure controls**

# Appropriate engineering controls

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

The basic types of engineering controls are:

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.

#### Personal protection









# Eye and face protection

- 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.

# Skin protection

See Hand protection below

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.

#### Hands/feet protection

Personal hygiene is a key element of effective hand care.

- Wear chemical protective gloves, e.g. PVC.
- ▶ Wear safety footwear or safety gumboots, e.g. Rubber

#### NOTE:

- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

# **Body protection**

See Other protection below

# Other protection

- Overalls.
- ► PVC Apron.
- ▶ PVC protective suit may be required if exposure severe.
- ► Eyewash unit.

# Recommended material(s)

# **GLOVE SELECTION INDEX**

Glove selection is based on a modified presentation of the:

# "Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection:

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Material	СРІ
BUTYL	A
PE/EVAL/PE	A
PVA	A
SARANEX-23	A
TEFLON	A
VITON	A

# Respiratory protection

Type A 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 ^

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NATURAL RUBBER	В
NITRILE	С

\* CPI - Chemwatch Performance Index

A: Best Selection

- B: Satisfactory; may degrade after 4 hours continuous immersion
- C: Poor to Dangerous Choice for other than short term immersion

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

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

^ - 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**

# Information on basic physical and chemical properties

Appearance	Clear flammable liquid with a mild odour; not miscible with water.		
Physical state	Liquid	Relative density (Water = 1)	0.97
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	250
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)	150-175	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	43 (OC-lit)	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Flammable.	Oxidising properties	Not Available
Upper Explosive Limit (%)	7.0	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	1.0	Volatile Component (%vol)	30-60
Vapour pressure (kPa)	>1	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	>1	VOC g/L	Not Available

# **SECTION 10 Stability and reactivity**

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

# **SECTION 11 Toxicological information**

# Information on toxicological effects

Inhaled

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

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

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	such irritation can cause further lung damage. Inhalation hazard is increased at higher temperatures. Toluene diisocyanate may produce lung irritation and airway narrowing. Severe irritation is produced by inhalation of low vapour concentrations. Symptoms may include a burning sensation, coughing, wheezing, hoarse voice, shortness of breath, headache, nausea and vomiting. Overexposure or repeated exposure may worsen symptoms.  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.  If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual.  Not a likely route of entry into the body in commercial or industrial environments. The liquid may produce considerable gastrointestinal discomfort and be harmful or toxic if swallowed.  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.
Skin Contact	Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.  There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.  Reactions may not occur on exposure but response may be delayed with symptoms only appearing many hours later  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.  Aromatic hydrocarbons may produce sensitivity and redness of the skin. They are not likely to be absorbed into the body through the skin but branched species are more likely to.
Еуе	Limited evidence or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals. Prolonged eye contact may cause inflammation characterised by a temporary redness of the conjunctiva (similar to windburn).  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.
Chronic	Persons with a history of asthma or other respiratory problems or are known to be sensitised, should not be engaged in any work involving the handling of isocyanates.  The chemistry of reaction of isocyanates, as evidenced by MDI, in biological milieu is such that in the event of a true exposure of small MDI doses to the mouth, reactions will commence at once with biological macromolecules in the buccal region and will continue along the digestive tract prior to reaching the stomach. Reaction products will be a variety of polyureas and macromolecular conjugates with for example mucus, proteins and cell components.  This is corroborated by the results from an MDI inhalation study.  With most allergens, removal of the offending material results in resolution of symptoms. Asthma caused by toluene diisocyanate (TDI) continues for months or even years after exposure ceases.  Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.  There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.  Inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population.  Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.  There is some evidence from animal testing that exposure to this material may result in toxic effects to the unborn baby. Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity.  CONTAINS free organic isocyanate. Mixing and application requires special precautions and use of personal protective gear [APMF]
	Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity.  CONTAINS free organic isocyanate. Mixing and application requires special precautions and use of personal protective gear

Marrial Estaval Obrada Basi	TOXICITY	IRRITATION
Wattyl Estapol Single Pack Gloss Range	Not Available	Not Available
	TOXICITY	IRRITATION
TDI/ trimethylolpropane	Oral(Rat) LD50; >5000 mg/kg <sup>[2]</sup>	Eye (rabbit): mild-irritant
prepolymer (solution)		Skin (rabbit): non-irritant/24hr
	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >8.264 mg/kg <sup>[2]</sup>	Eye: adverse effect observed (irritating) <sup>[1]</sup>
toluene diisocyanate	Inhalation(Mouse) LC50; 0.069 mg/L4 <sup>[2]</sup>	Skin: adverse effect observed (irritating) <sup>[1]</sup>
	Oral(Rat) LD50; >2000 mg/kg <sup>[1]</sup>	
	TOXICITY	IRRITATION
naphtha petroleum, light aromatic solvent	Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation(Rat) LC50; >4.42 mg/L4 <sup>[1]</sup>	Skin: adverse effect observed (irritating) <sup>[1]</sup>
	Oral(Rat) LD50; >4500 mg/kg <sup>[1]</sup>	

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Legend:

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

#### TDI/ TRIMETHYLOLPROPANE PREPOLYMER (SOLUTION)

The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a

# TOLUENE DIISOCYANATE

non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.

Isocyanate vapours are irritating to the airways and can cause their inflammation, with wheezing, gasping, severe distress, even loss of consciousness and fluid in the lungs. Nervous system symptoms that may occur include headache, sleep disturbance, euphoria, inco-ordination, anxiety, depression and paranoia.

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

The material may cause severe 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. Repeated exposures may produce severe ulceration. Aromatic and aliphatic diisocyanates may cause airway toxicity and skin sensitization. Monomers and prepolymers exhibit similar respiratory effect. Of the several members of diisocyanates tested on experimental animals by inhalation and oral exposure, some caused cancer while others produced a harmless outcome. This group of compounds has therefore been classified as cancer-causing.

Inhalation (rat) TCLo: 1320 ppm/6h/90D-I \* [Devoe]

For Low Boiling Point Naphthas (LBPNs):

#### 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.

#### Sensitisation:

LBPNs do not appear to be skin sensitizers, but a poor response in the positive control was also noted in these studies **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.

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 cycloparaffins.

#### NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT

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. For trimethylbenzenes:

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

For C9 aromatics (typically trimethylbenzenes - TMBs)

Acute toxicity: Animal testing shows that semi-lethal concentrations and doses vary amongst this group. The semilethal concentrations for inhalation range from 6000 to 10000 mg/cubic metre for C9 aromatic naphtha and 18000-24000 mg/cubic metre for 1.2.4- and 1.3.5-TMB, respectively.

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

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

Mutation-causing ability: No evidence of mutation-causing ability and genetic toxicity was found in animal and laboratory testing. Reproductive and developmental toxicity: No definitive effects on reproduction were seen, although reduction in weight in developing animals may been seen at concentrations that are toxic to the mother.

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

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testing shows evidence of tumour formation.

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.

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).

**Wattyl Estapol Single Pack** Gloss Range & TDI/ TRIMETHYLOLPROPANE **PREPOLYMER** (SOLUTION) & TOLUENE DIISOCYANATE

The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important.

Allergic reactions involving the respiratory tract are usually due to interactions between IgE antibodies and allergens and occur rapidly. Allergic potential of the allergen and period of exposure often determine the severity of symptoms. Some people may be genetically more prone than others, and exposure to other irritants may aggravate symptoms. Allergy causing activity is due to interactions with proteins.

Attention should be paid to atopic diathesis, characterised by increased susceptibility to nasal inflammation, asthma and eczema. Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure.

Acute Toxicity	<b>~</b>	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	<b>~</b>	STOT - Single Exposure	<b>✓</b>
Respiratory or Skin sensitisation	<b>~</b>	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

🗶 - Data either not available or does not fill the criteria for classification

Data available to make classification

# **SECTION 12 Ecological information**

# **Toxicity**

Vattyl Estapol Single Pack Gloss Range	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
TDV ( )	Endpoint	Test Duration (hr)	Species	Value	Source
TDI/ trimethylolpropane prepolymer (solution)	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48	Crustacea	12.5mg/l	1
toluene diisocyanate	LC50	96	Fish	~0.4mg/l	2
·	EC50(ECx)	504	Crustacea	>=0.5mg/l	2
	EC50	96	Algae or other aquatic plants	3230mg/l	1
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72	Algae or other aquatic plants	19mg/l	1
naphtha petroleum, light aromatic solvent	EC50	96	Algae or other aquatic plants	64mg/l	2
aromatic solvent	NOEC(ECx)	72	Algae or other aquatic plants	1mg/l	1
	EC50	48	Crustacea	6.14mg/l	1

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.

For Aromatics: log Kow 2-3.

BCF 20-200

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

Toxic to aquatic organisms.

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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.

May cause long-term adverse effects in the aquatic environment.

DO NOT discharge into sewer or waterways.

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
toluene diisocyanate	LOW (Half-life = 1 days)	LOW (Half-life = 0.13 days)

# **Bioaccumulative potential**

Ingredient	Bioaccumulation
toluene diisocyanate	LOW (BCF = 5)

# Mobility in soil

Ingredient	Mobility
toluene diisocyanate	LOW (KOC = 9114)

# **SECTION 13 Disposal considerations**

#### Waste treatment methods

- ► 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).
- Product / Packaging disposal
- ► Decontaminate empty containers.
- ▶ 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 SDS and observe all notices pertaining to the product.

# **SECTION 14 Transport information**

# **Labels Required**



Marine Pollutant



HAZCHEM

•3Y

# Land transport (ADG)

UN number	1263		
UN proper shipping name	,	AINT (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)	Class Subrisk	3 Not Applicable	
Packing group	Ш		
Environmental hazard	Environmen	tally hazardous	

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Special precautions for user

Special provisions	163 223 367
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)			
	ICAO/IATA Class	3		
Transport hazard class(es)	ICAO / IATA Subrisk	Not Applicable		
	ERG Code	3L		
Packing group	III			
Environmental hazard	Environmentally hazardous			
	Special provisions		A3 A72 A192	
	Cargo Only Packing Instructions		366	
	Cargo Only Maximum Qty / Pack		220 L	
Special precautions for user	Passenger and Cargo Packing Instructions		355	
4001	Passenger and Cargo Maximum Qty / Pack		60 L	
	Passenger and Cargo Limited Quantity Packing Instructions		Y344	
	Passenger and Cargo	Limited Maximum Qty / Pack	10 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 No	ot Applicable		
Packing group				
Environmental hazard	Marine Pollutant			
Special precautions for user	EMS Number Special provisions Limited Quantities	F-E , S-E 163 223 367 955 5 L		

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

Not Applicable

# Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
TDI/ trimethylolpropane prepolymer (solution)	Not Available
toluene diisocyanate	Not Available
naphtha petroleum, light aromatic solvent	Not Available

# Transport in bulk in accordance with the ICG Code

Product name	Ship Type
TDI/ trimethylolpropane prepolymer (solution)	Not Available
toluene diisocyanate	Not Available
naphtha petroleum, light aromatic solvent	Not Available

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# **SECTION 15 Regulatory information**

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

#### TDI/ trimethylolpropane prepolymer (solution) is found on the following regulatory lists

Australia Model Work Health and Safety Regulations - Hazardous chemicals (other than lead) requiring health monitoring

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

#### toluene diisocyanate is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Model Work Health and Safety Regulations - Hazardous chemicals (other than lead) requiring health monitoring

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

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

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

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

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by
the IARC Monographs

#### **National Inventory Status**

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (TDI/ trimethylolpropane prepolymer (solution))
Canada - DSL	No (TDI/ trimethylolpropane prepolymer (solution))
Canada - NDSL	No (TDI/ trimethylolpropane prepolymer (solution); toluene diisocyanate; naphtha petroleum, light aromatic solvent)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (TDI/ trimethylolpropane prepolymer (solution))
Japan - ENCS	No (TDI/ trimethylolpropane prepolymer (solution))
Korea - KECI	No (TDI/ trimethylolpropane prepolymer (solution))
New Zealand - NZIoC	Yes
Philippines - PICCS	No (TDI/ trimethylolpropane prepolymer (solution))
USA - TSCA	No (TDI/ trimethylolpropane prepolymer (solution))
Taiwan - TCSI	Yes
Mexico - INSQ	No (TDI/ trimethylolpropane prepolymer (solution))
Vietnam - NCI	No (TDI/ trimethylolpropane prepolymer (solution))
Russia - ARIPS	No (TDI/ trimethylolpropane prepolymer (solution))
Legend:	Yes = All CAS declared ingredients are on the inventory  No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

# **SECTION 16 Other information**

Revision Date	01/11/2019
Initial Date	01/11/2009

# **SDS Version Summary**

Version	Issue Date	Sections Updated
6.1.1.1	12/04/2016	Fire Fighter (extinguishing media), Fire Fighter (fire/explosion hazard)
7.1.1.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification

# 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.

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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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