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**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

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**1.1 Product identifier****Product name** TINMAC STANNOLYTE INITIAL BRIGHTENER**Synonyms** STANNOLYTE INITIAL BRIGHTENER**1.2 Uses and uses advised against****Uses** INDUSTRIAL APPLICATIONS • SURFACE TREATMENT**1.3 Details of the supplier of the product****Supplier name** DUBOIS CHEMICALS AUSTRALIA PTY LIMITED**Address** 305 Frankston Dandenong Rd, Dandenong South, VIC, 3175, AUSTRALIA**Telephone** (03) 9768 3860**Email** [sales@duboischchemicals.com.au](mailto:sales@duboischchemicals.com.au)**Website** <http://duboischchemicals.com.au/>**1.4 Emergency telephone numbers****Emergency** 13 11 26 (Poisons Information Centre)

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**2. HAZARDS IDENTIFICATION**

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**2.1 Classification of the substance or mixture**

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

**Physical Hazards**

Flammable Liquids: Category 2

Corrosive to Metals: Category 1

**Health Hazards**

Acute Toxicity: Oral: Category 4

Acute Toxicity: Skin: Category 4

Skin Corrosion / Irritation: Category 2

Skin Sensitisation: Category 1

Serious Eye Damage / Eye Irritation: Category 1

Acute Toxicity: Inhalation: Category 4

Germ Cell Mutagenicity: Category 2

Carcinogenicity: Category 2

Specific Target Organ Toxicity (Single Exposure): Category 1

**Environmental Hazards**

Aquatic Toxicity (Chronic): Category 3

**2.2 GHS Label elements****Signal word** DANGER**Pictograms**

**PRODUCT NAME TINMAC STANNOLYTE INITIAL BRIGHTENER****Hazard statements**

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H370	Causes damage to organs (central nervous system (CNS), optic nerve).
H412	Harmful to aquatic life with long lasting effects.

**Prevention statements**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P234	Keep only in original packaging.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

**Response statements**

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311	IF exposed or concerned: Call a POISON CENTRE or doctor/physician.
P321	Specific treatment is advised - see first aid instructions.
P330	Rinse mouth.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use appropriate media to extinguish.
P390	Absorb spillage to prevent material damage.

**Storage statements**

P403 + P233 + P235	Store in a well-ventilated place. Keep cool. Keep container tightly closed.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.

**Disposal statements**

P501	Dispose of contents/container in accordance with relevant regulations.
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**2.3 Other hazards**

No information provided.

**3. COMPOSITION/ INFORMATION ON INGREDIENTS****3.1 Substances / Mixtures**

Ingredient	CAS Number	EC Number	Content
METHANOL	67-56-1	106-533-6	>=10 to <25%
POLY(OXY-1,2-ETHANEDIYL)-TRIDECYL-HYDROXY BRANCHED	69011-36-5	500-241-6	>=10 to <25%
IMIDAZOLIUM COMPOUNDS, 1-[2-(2-CARBOXYETHOXY)ETHYL]-1(OR 3)-(2-CARBOXYETHYL)-4,5-DIHYDRO-2-NORCOCO ALKYL	68919-40-4	272-897-9	<=5%

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CATECHOL (1,2-BENZENEDIOL)	120-80-9	204-427-5	<=3%
SULPHURIC ACID	7664-93-9	231-639-5	<=3%
4-PHENYLBUTENONE	122-57-6	204-555-1	<1%
METHYL METHACRYLATE	80-62-6	201-297-1	<=0.3%
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	Remainder

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**4. FIRST AID MEASURES**

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**4.1 Description of first aid measures**

<b>Eye</b>	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
<b>Inhalation</b>	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
<b>Skin</b>	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
<b>Ingestion</b>	For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
<b>First aid facilities</b>	Eye wash facilities should be available.

**4.2 Most important symptoms and effects, both acute and delayed**

Methanol primarily affects the central nervous system, with symptoms of headache, nausea, vomiting and dizziness. Damage to the optic nerves may occur with chronic or high level exposure, causing visual problems and possible blindness.

**4.3 Immediate medical attention and special treatment needed**

Treat symptomatically.

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**5. FIRE FIGHTING MEASURES**

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**5.1 Extinguishing media**

Dry agent, carbon dioxide, foam or water fog. Prevent contamination of drains or waterways.

**5.2 Special hazards arising from the substance or mixture**

Highly flammable. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot lights, mobile phones, etc when handling. Earth containers when dispensing fluids. May evolve nitrogen oxides and sulphur oxides when heated to decomposition.

**5.3 Advice for firefighters**

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

**5.4 Hazchem code**

- 3WE
- 3 Alcohol Resistant Foam is the preferred firefighting medium but, if it is not available, normal foam can be used.
- W Risk of violent reaction or explosion. Wear liquid-tight chemical protective clothing and breathing apparatus. Contain spill and run-off.
- E Evacuation of people in and around the immediate vicinity of the incident should be considered.

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**6. ACCIDENTAL RELEASE MEASURES**

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**6.1 Personal precautions, protective equipment and emergency procedures**

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

**6.2 Environmental precautions**

Prevent product from entering drains and waterways.

**6.3 Methods of cleaning up**

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

**6.4 Reference to other sections**

See Sections 8 and 13 for exposure controls and disposal.

**7. HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate fire protection systems. Store between 5°C and 40°C.

**7.3 Specific end uses**

No information provided.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**8.1 Control parameters**

**Exposure standards**

Ingredient	Reference	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Catechol	SWA [AUS]	5	23	--	--
Catechol	SWA [Proposed]	0.05	0.2	--	--
Methanol	SWA [AUS]	200	262	250	328
Methyl methacrylate	SWA [AUS]	50	208	100	416
Sulphuric acid	SWA [AUS]	--	1	--	3
Sulphuric acid	SWA [Proposed]	--	0.1	--	--

**Biological limits**

Ingredient	Reference	Determinant	Sampling Time	BEI
CATECHOL (1,2-BENZENEDIOL)	ACGIH BEI	Methemoglobin in blood	During or end of shift	1.5% of hemoglobin
METHANOL	ACGIH BEI	Methanol in urine	End of shift	15 mg/L

**8.2 Exposure controls**

**Engineering controls**

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

**PPE**

- Eye / Face** Wear splash-proof goggles.
- Hands** Wear butyl or Viton® or barrier gloves.
- Body** Wear coveralls.
- Respiratory** Where an inhalation risk exists, wear a Type A (organic vapour) / Organic vapour respirator.



**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

Appearance	AMBER LIQUID
Odour	ALCOHOL-LIKE ODOUR

**9.1 Information on basic physical and chemical properties**

Flammability	HIGHLY FLAMMABLE
Flash point	12°C (cc)
Boiling point	65°C
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	< 3
Vapour density	NOT AVAILABLE
Relative density	NOT AVAILABLE
Solubility (water)	SOLUBLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	36 %
Lower explosion limit	6 %
Partition coefficient	NOT AVAILABLE
Autoignition temperature	440°C
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

**10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

May be corrosive to metals.

**10.2 Chemical stability**

Stable under recommended conditions of storage.

**10.3 Possibility of hazardous reactions**

Polymerization is not expected to occur under normal conditions.

**10.4 Conditions to avoid**

Avoid heat, sparks, open flames and other ignition sources.

**10.5 Incompatible materials**

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), heat and ignition sources. Corrosive to metals.

**10.6 Hazardous decomposition products**

May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition.

**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Acute toxicity** Harmful if swallowed, in contact with skin or if inhaled. Ingestion of large quantities may result in nausea, vomiting, abdominal pain and diarrhoea.

**Information available for the ingredients:**

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
METHANOL	300 mg/kg (human)	15,800 mg/kg (rabbit)	50 g/m <sup>3</sup> /2 hours (mouse)
CATECHOL (1,2-BENZENEDIOL)	300 mg/kg (rat)	600 mg/kg (rat)	--
SULPHURIC ACID	2140 mg/kg (rat)	--	18 mg/m <sup>3</sup> (guinea pig); 510 mg/m <sup>3</sup> /2hrs (rat)
4-PHENYLBUTENONE	2031 mg/kg (rat)	> 3000 mg/kg (rabbit)	--
METHYL METHACRYLATE	> 5000 mg/kg (mouse)	> 5000 mg/kg (rabbit)	> 25 mg/L (rat)

**Skin** Contact may result in drying and defatting of the skin, rash and dermatitis.

**Eye** Causes serious eye damage. Contact may result in irritation, lacrimation, pain, redness and possible serious eye damage.

**Sensitisation** May cause an allergic skin reaction. This product is not classified as a respiratory sensitiser.

## PRODUCT NAME **TINMAC STANNOLYTE INITIAL BRIGHTENER**

<b>Mutagenicity</b>	Catechol is suspected of causing genetic defects.
<b>Carcinogenicity</b>	Suspected of causing cancer. Catechol is classified as possibly carcinogenic to humans (IARC Group 2B). Occupational exposure to strong inorganic acid mists containing sulphuric acid is classified as carcinogenic to humans (IARC Group 1).
<b>Reproductive</b>	Not classified as a reproductive toxin.
<b>STOT - single exposure</b>	Over exposure to methanol may result in acidosis and visual effects. Clinical symptoms include headache, dizziness, nausea, vomiting, abdominal pain, and laboured breathing. Symptoms may progress to coma and death from respiratory failure. Methanol exposure results in ocular effects ranging from mild photophobia, misty or blurred vision to markedly reduced visual acuity and total blindness (AICIS).
<b>STOT - repeated exposure</b>	Methanol primarily affects the central nervous system, with symptoms of headache, nausea, vomiting and dizziness. Damage to the optic nerves may occur with repeated exposure, causing visual problems and possible blindness.
<b>Aspiration</b>	Not classified as causing aspiration.

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## 12. ECOLOGICAL INFORMATION

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### 12.1 Toxicity

Harmful to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

If released to the atmosphere methanol degrades via reaction with photochemically produced hydroxyl radicals (it remains in vapour for 18 days). It is expected to biodegrade in both soil and water. If spilt on soil it is expected to be susceptible to significant leaching, as well rapid evaporation from dry surfaces is likely to occur.

### 12.3 Bioaccumulative potential

Methanol does not concentrate or accumulate in fish.

### 12.4 Mobility in soil

Methanol is soluble in water and is carried in the water and air. Methanol does not bind well to soil, so it can enter the groundwater.

### 12.5 Other adverse effects

If released to the atmosphere methanol degrades via reaction with photochemically produced hydroxyl radicals. It is expected to biodegrade in both soil and water. If spilt on soil it is expected to be susceptible to significant leaching, as well rapid evaporation from dry surfaces is likely to occur. Chronic aquatic toxicity possible above 32 ppm.

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## 13. DISPOSAL CONSIDERATIONS

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### 13.1 Waste treatment methods

**Waste disposal** Wearing the protective equipment outlined, ensure all ignition sources are extinguished. For small quantities, absorb on paper, sand or similar and evaporate under a fume cupboard or open area. For large volumes, atomise into incinerator (mixing with more flammable solvent if required) or recycle by gravimetric separation, distilling & reusing. Contact the manufacturer/supplier for additional information (if required).

**Legislation** Dispose of in accordance with relevant local legislation.

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## 14. TRANSPORT INFORMATION

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**CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE**



**PRODUCT NAME TINMAC STANNOLYTE INITIAL BRIGHTENER**

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
<b>14.1 UN Number</b>	2924	2924	2924
<b>14.2 Proper Shipping Name</b>	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (contains methanol, sulphuric acid)	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (contains methanol, sulphuric acid)	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (contains methanol, sulphuric acid)
<b>14.3 Transport hazard classes</b>	3 (8)	3 (8)	3 (8)
<b>14.4 Packing Group</b>	II	II	II

**14.5 Environmental hazards**

Not a Marine Pollutant.

**14.6 Special precautions for user**

Hazchem code ●3WE  
EmS F-E, S-C

**15. REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Poison schedule** Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

**Classifications** Safe Work Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).

**Inventory listings** **AUSTRALIA: AIIC (Australian Inventory of Industrial Chemicals)**  
All components are listed on AIIC, or are exempt.  
**UNITED STATES: TSCA (US Toxic Substances Control Act)**  
All components are listed on the TSCA inventory, or are exempt.

**16. OTHER INFORMATION****Additional information**

**WORK PRACTICES - SOLVENTS:** Organic solvents may present both a health and flammability hazard. It is recommended that engineering controls should be adopted to reduce exposure where practicable (for example, if using indoors, ensure explosion proof extraction ventilation is available). Flammable or combustible liquids with explosive limits have the potential for ignition from static discharge. Refer to AS 1020 (The control of undesirable static electricity) and AS 1940 (The storage and handling of flammable and combustible liquids) for control procedures.

**RESPIRATORS:** In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

**WORKPLACE CONTROLS AND PRACTICES:** Unless a less toxic chemical can be substituted for a hazardous substance, **ENGINEERING CONTROLS** are the most effective way of reducing exposure. The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release. Isolating operations can also reduce exposure. Using respirators or protective equipment is less effective than the controls mentioned above, but is sometimes necessary.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**HEALTH EFFECTS FROM EXPOSURE:**

It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

**PRODUCT NAME TINMAC STANNOLYTE INITIAL BRIGHTENER**

**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

**Report status**

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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