

ABN 71 002 591 620 17 Reaghs Farm Rd, Minto NSW 2566 Telephone: (02) 9603-3399 Fax: (02) 9603-7761 Website: www.austspecialtyinks.com.au

Product Number: FSU54

SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifiers

Product Name: TOLUENE

Product Number: FSU54

Recommended Use of the chemical and restrictions on use: Use as a thinning solvent

Company Details

AUSTRALIAN SPECIALTY INKS PTY LTD A.B.N. 71 002 591 620 17 REAGHS FARM ROAD MINTO NSW 2566 (02) 9603-3399 A/H (02) 9792-7790 or mobile 0414 616247 Email: <u>info@austspecialtyinks.com.au</u> Website: www.austspecialtyinks.com.au

Emergency Telephone Number

Mob: 0414616247

2. HAZARDS IDENTIFICATION

Classified as hazardous according to the Globally Harmonised System of Classification and labeling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th Edition).

Signal Words: Flammable Liquids: Category 3 DANGER

Poisons Schedule: 6



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GHS Classification	Pictogram	Hazard Statement
Flammable Liquids, Category 2		H225 Highly Flammable liquid and vapour.
Skin irritation – Category 2 Specific target organ toxicity (repeated exposure) – Category 2 Reproductive toxicity – Category 1A Specific target organ toxicity (single exposure) – Category 3		H315 Causes skin irritation H373 May cause damage to organs through prolonged or repeated exposure H360 May damage fertility or the unborn child H336 May cause drowsiness or dizziness AUH066 Repeated exposure may cause skin dryness and cracking.
Aspiration hazard – Category 1		H304 May be fatal if swallowed and enters airways.
Acute Aquatic Toxicity, Category 3	¥2	H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

GENERAL	P101 P102 P103	If medical advice is needed, have product container or label at hand Keep out of reach of children Read label before use
PREVENTATIVE		
	P201	Obtain special instructions before use
	P202	Do not handle until all safety precautions have been read and understood
	P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking
	P233	Keep container tightly closed
	P240	Ground/Bond container and receiving equipment
	P241	Use explosion-proof electrical/ventilating/lighting/equipment
	P242	Use only non-sparking tools
	P243	Take precautionary measures against static discharge
	P260	Do not breathe dust/fume/gas/mist/vapours/spray
	P271	Use only outdoors or in a well-ventilated area
	P273	Avoid release to the environment
	P280	Wear protective gloves/eye protection/face protection
	P281	Use personal protective equipment as required



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RESPONSE	
P301+P310	
P303+P361+P353	ON SKIN (or hair) Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P303+P361+P353	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if
	present and easy to do – continue rinsing.
	,
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P331	Do NOT induce vomiting
P370+P378	In case of fire: Use foam, dry chemical or carbon dioxide for extinction
P391	Collect spillage
STORAGE	
P403+P235	
P405	Store locked up
DISPOSAL	
P501	Dispose of contents/container in accordance with local regulations
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients Names and Proportions

Chemical entity	CAS Number	Proportion
Toluene	108-88-3	100%

4. FIRST-AID MEASURES

Description of necessary first aid measures

Inhalation:	Remove victim from exposure if safe to do so. Administer artificial respiration if breathing is stopped. Keep at rest. If rapid recovery does not occur, transport to nearest medical facility for additional treatment. Remove contaminated clothing.
Skin Contact:	If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water and follow by washing with soap if available. If irritation occurs seek medical advice.
Eye Contact:	If in eyes, hold eyes open, flood with water for at least 15 minutes. Seek immediate medical assistance.
Ingestion:	If swallowed, do NOT induce vomiting. Transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.



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Symptoms caused by exposure

Inhalation:	Breathing of high vapour concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.
Skin Contact:	May include burning sensation, redness, swelling and/or dried cracked appearance.
Eye Contact:	Will include burning sensation, redness, swelling and/or blurred vision. Can cause corneal burns.
Ingestion:	May include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath and/or fever. Irritation of the gastrointestinal tract.

Medical attention and special treatment: Treat symptomatically. Avoid gastric lavage: risk of aspiration of product to the lungs with the potential to cause chemical pneumonitis.

5. FIRE-FIGHTING MEASURES

Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing firefighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable extinguishing equipment

Alcohol stable foam, water spray or fog, dry chemical powder or carbon dioxide. Do not use water in a jet.

Specific hazards arising from the chemical

Carbon monoxide and/or carbon dioxide may be evolved. Will float and can be reignited on surface water. Vapour is heavier than air, can spread along ground and distant ignition is possible.

Special protective equipment and precautions for fire fighters

Wear liquid-tight chemical protective clothing and self-contained breathing apparatus. Hazchem code is 3YE.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled or released material. Shut off leaks, if possible without personal risks. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Remove all sources of ignition in the surrounding area. Take precautionary measure against static discharge. Ensure electrical continuity by bonding and earthing all equipment.



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Environmental precautions

Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway using sand, earth or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Ventilate contaminated area thoroughly.

Methods and materials for containment and cleaning up

Eliminate sources of ignition. Shut off source of the spill if possible and safe to do so.

For small spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for recovery or safe disposal. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely.

For larger spills (> 1 drum), transfer by means such as a vacuum truck to a salvage tank for recovery or disposal. Do not flush residues with water. Retain as contaminated waste. Allow any residues to evaporate or use an appropriate absorbent material and dispose of safely.

7. HANDLING AND STORAGE

Precautions for safe handling

Flammable product. Do not open near open flame, sources of heat or ignition. Avoid breathing vapours. Handle and open containers with care in a well-ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in contaminated areas. Electrostatic charges may be generated during transfer. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and earthing all equipment. Flameproof equipment necessary in area where chemical is being used. Vapours may accumulate in low or confined areas.

Conditions for safe storage, including any incompatibilities

Bulk storage tanks should be bunded. Store in a well ventilated area, away from sunlight, ignition sources and other sources of heat. Do not store near strong oxidizers and alkalis. Do not pressurize, cut, heat or weld containers – residual vapours are flammable. This product is flammable and will fuel a fire in progress.

Incompatible materials

Natural, butyl or nitrile rubbers. EPDM and polystyrene.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure control measures

From National Occupational Health & Safety Commission (NOHSC) Worksafe Australia – FSU54: 191 mg/m³ (50ppm) TWA (8hr). Short term exposure limit (STEL) is 574 mg/m³ (150ppm), which is the maximum allowable exposure concentration at any time.



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Biological monitoring

Biological Exposure Index (BEI): 0.5 mg/l o-Cresol in urine at end of shift.

Engineering controls

Ensure that adequate ventilation is provided. Use explosion-proof ventilation equipment. Maintain air concentrations below recommended exposure standards. Avoid generating and inhaling mists and vapours. Keep containers closed when not in use.

Individual protection measures

Eye and face protection:	Wear safety goggles or a face shield.	
Skin protection:	Use solvent resistant gloves, nitrile for longer term protection or PVC and neoprene for incidental splashes. Long sleeves and long trousers or coveralls and enclosed footwear or safety boots.	
Respiratory Protection:	If work practices do not maintain airborne level below the exposure standard, use appropriate respiratory protection equipment. When using respirators, select an appropriate combination of mask and filter. Select a filter for organic gases and vapours (boiling point > 65° C). Respirators should comply with AS1716 or an equivalent approved by a state/territory authority.	
Thermal hazards:	Not applicable.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colourless clear liquid
Odour threshold (ppm):	Data not available
Percent Volatiles:	100
Initial boiling point and boiling range (⁰ C):	110
Flash point (⁰ C):	4 (closed cup)
Evaporation rate (Butyl acetate = 1):	Data not available



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Flammability:	Flammable
Upper/lower flammability or explosive limits (%):	1.2 – 8.0
Vapour pressure (@ 20⁰C):	3.5
Vapour density (air = 1):	3.1
Density (g/ml @ 15⁰C):	.871
Solubility with water %w/w:	.515 kg/m3
Partition coefficient n-octanol/water:	Data not available
Auto-ignition temperature (⁰ C):	480-536
Decomposition temperature (⁰ C):	Data not available
Kinematic viscosity (mm ² /s @ 20 ⁰ C):	Data not available

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions of use.

Chemical stability

Stable under normal conditions of use.

Possibility of hazardous reactions

Stable under normal conditions of use.

Conditions to avoid

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

Incompatible materials

Reacts violently with strong oxidizing agents, nitric acid and sulphuric acid. Natural rubber, butyl rubber, EPDM and polystyrene.



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Hazardous decomposition products

Burning can produce carbon monoxide and/or carbon dioxide. A complex mixture of airborne solids, liquids, gases and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	LD50 Oral (rat): 636mg/kg LD50 Dermal (rabbit): 14100µL/kg
Skin corrosion/irritation:	Prolonged contact may cause defatting of skin which can lead to dermatitis. Can be absorbed through skin with resultant adverse effects.
Serious eye damage/irritation:	Irritating to eyes, will cause redness and swelling with a burning sensation and blurred vision. Can cause corneal burns.
Germ cell mutagenicity:	Not mutagenic.
Reproductive toxicity:	May damage fertility or the unborn child.
Specific Target Organ Toxicity (STOT) – single exposure:	Breathing in vapour may produce respiratory irritation. In high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgment, dizziness and if exposure is prolonged unconsciousness.
Specific Target Organ Toxicity (STOT) – repeated exposure:	May cause damage to organs through prolonged or repeated exposure. Particularly liver and kidney.
Aspiration hazard:	Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Chronic Effects

Repeated over exposure may cause hemolysis of the red blood cells leading to possible liver and kidney damage. Any existing dermatitis may be exacerbated by exposure to this product. Prolonged contact with this product will result in irritant contact dermatitis if care is not taken to wash affected areas. This product is regarded as a category 3 carcinogen which indicates that there have been reports of tumors in animal testing, but that there is no direct evidence of these effects in humans.



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Other Health Effects

Persons with pre-existing liver, kidney, central nervous system or skin complaints should avoid unnecessary exposure to this product. Every effort to protect eyes, respiratory tract and skin exposure should be taken in these circumstances.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute toxicity

Fish:	LC ₅₀ (96hr): Rainbow Trout EC50: 7250µg/l
Aquatic invertebrate:	LC₅₀(24hr): Daphnia Magna: 6000µg/l
Algae:	LO _{EC} : Green algae: 400000µg/l (Threshold 7-8 days)

Persistence and degradability

Log P:2.73 - volatilises in air.

Mobility

Floats on water. If product enters soil, it will be highly mobile and may contaminate groundwater.

Other adverse effects

Data not available.



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13. DISPOSAL CONSIDERATIONS

Ensure waste disposal conforms to local waste disposal regulations. Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities.

This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product is ashless and can be burned directly in appropriate equipment.

14. TRANSPORT INFORMATION

UN number:	1294
Proper shipping name:	Toluene
Australian Dangerous Goods class:	3
Australian Dangerous Goods packing group:	11
Hazchem code:	3YE

15. REGULATORY INFORMATION

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poisons Schedule:	6
Australian Inventory of Chemical Substances (AICS):	Listed
Australian Dangerous Goods class:	3
Hazchem code:	3YE



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16. ANY OTHER RELEVANT INFORMATION

Date of preparation:	15/03/2020
Revision number:	1
Changes in this revision:	Update to GHS SDS standard