Safety Data Sheet EA50 Stain

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SECTION 1: Identification

GHS Product identifier

Product name	EA50 Stain

Other means of identification

Product	Product Code
EA50 Stain	EA50-
EA50 Stain	EA50-2.5L
EA50 Stain	EA50-500
EA50 Stain	EA50-5L
E.A.50 PAP Buffered	AEA50.10L
E.A.50 PAP Buffered	AEA50.1L
E.A.50 PAP Buffered	AEA50.2.5L
E.A.50 PAP Buffered	AEA50.5L
E.A.-50 Papanicolaou Stain	613-

Recommended use of the chemical and restrictions on use

Cytology stain, laboratory reagent.

Supplier's details

Name	ChemSupply Australia Pty Ltd
Address	38-50 Bedford Street 5013 Gillman South Australia Australia
Telephone	08 8440 2000
email	www.chemsupply.com

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 2A
- Flammable liquids, Cat. 2
- Skin corrosion/irritation, Cat. 2
- Specific target organ toxicity following single exposure, Cat. 1
- Acute toxicity, dermal, Cat. 4
- Acute toxicity, inhalation, Cat. 4
- Acute toxicity, oral, Cat. 4

GHS label elements, including precautionary statements

Pictograms

Signal word **Danger**

Hazard statement(s)

H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H370	Causes damage to organs [Eyes, CNS]

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physcian if you feel unwell,
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.
P312	Call a POISON CENTER/doctor/physcian if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Other components either not classified as Hazardous under the GHS, or below cut-off concentrations to be classified as Hazardous.

Components

Component	CAS no.	Concentration

Ethanol (EC no.: 200-578-6; Index no.: 603-002-00-5)	**64-17-5**	**<= 65 % (weight)**
CLASSIFICATIONS: Flammable liquids, Cat. 2; Serious eye damage/eye irritation, Cat. 2A. HAZARDS: H225 - Highly flammable liquid and vapor; H319 - Causes serious eye irritation.		
Methanol (EC no.: 200-659-6; Index no.: 603-001-00-X)	**67-56-1**	**< 25 % (weight)**
CLASSIFICATIONS: Flammable liquids, Cat. 2; Acute toxicity, inhalation, Cat. 3; Acute toxicity, dermal, Cat. 3; Acute toxicity, oral, Cat. 3; Specific target organ toxicity following single exposure, Cat. 1. HAZARDS: H225 - Highly flammable liquid and vapor; H301 - Toxic if swallowed; H311 - Toxic in contact with skin; H331 - Toxic if inhaled; H370 - Causes damage to organs [organs, route]. [SCLs/M-factors/ATEs]: *; STOT SE 1; H370: C ≥ 10 %; STOT SE 2; H371: 3 % ≤ C < 10 %		
EOSIN (EC no.: 239-138-3)	**17372-87-1**	**< 1 % (weight)**
CLASSIFICATIONS: Serious eye damage/eye irritation, Cat. 2A. HAZARDS: H319 - Causes serious eye irritation.		
Acetic acid (EC no.: 200-580-7; Index no.: 607-002-00-6)	**64-19-7**	**< 2 % (weight)**
CLASSIFICATIONS: Flammable liquids, Cat. 3; Skin corrosion/irritation, Cat. 1A. HAZARDS: H226 - Flammable liquid and vapor; H314 - Causes severe skin burns and eye damage. [SCLs/M-factors/ATEs]: Skin Corr. 1A; H314: C ≥ 90 %; Skin Corr. 1B; H314: 25 % ≤ C < 90 %; Skin Irrit. 2; H315: 10 % ≤ C < 25 %; Eye Irrit. 2; H319: 10 % ≤ C < 25 %		
Phosphotungstic Acid Hydrate	**12501-23-4**	**< 0.5 % (weight)**
CLASSIFICATIONS: Acute toxicity, oral, Cat. 4; Hazardous to the aquatic environment, long-term (chronic), Cat. 2; Serious eye damage/eye irritation, Cat. 1; Skin corrosion/irritation, Cat. 1C. HAZARDS: H302 - Harmful if swallowed; H314 - Causes severe skin burns and eye damage; H318 - Causes serious eye damage; H411 - Toxic to aquatic life with long lasting effects.		
LIGHT GREEN SF, YELLOWISH (EC no.: 225-906-5)	**5141-20-8**	**< 0.1 % (weight)**
CLASSIFICATIONS: Carcinogenicity, Cat. 2. HAZARDS: H351 - Suspected of causing cancer [route].		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor (at once). First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
In case of skin contact	Wash off with soap and plenty of water. Get medical attention if symptoms occur.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

Advice to Doctor: The severity of outcome following methanol ingestion may be more related to the time between ingestion and treatment, rather than the amount ingested. Therefore, there is a need for rapid treatment of any ingestion exposure. Ethanol (contained in alcoholic beverages) can slow the metabolism of methanol, thus reducing the potential for harmful effects.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Specific Methods: Caution: Use of water spray when fighting fire may be inefficient.
Small fire: Use foam, dry chemical, CO2 or water spray.
Large fire: Use foam, fog or water spray - Do not use water jets.
If safe to do so, move undamaged containers from fire area. Cool containers with flooding quantities of water until well after fire is out.
Avoid getting water inside containers.

Specific hazards arising from the chemical

Carbon dioxide, carbon monoxide, formaldehyde and other toxic, irritating chemicals.

HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flame. Vapours will form explosive mixtures with air. Vapours may travel to source of ignition and flash back. Vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks).

Ethanol: Carbon oxides

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Methods and materials for containment and cleaning up

ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50m - All equipment used when handling the product must be earthed. Do not touch or walk through spilled material. Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Vapour-suppressing foam may be used to control vapours - Water spray may be used to knock down or divert vapour clouds. Absorb with earth, sand or other non-combustible material. Use clean, non-sparking tools to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal. SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

SECTION 7: Handling and storage

Precautions for safe handling

Keep locked up. Keep containers tightly sealed. Protect against physical damage. Avoid use in confined spaces. Ensure good ventilation/exhaustion at the workplace. Work under hood. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid prolonged or repeated exposure. Do not ingest. If ingested, seek medical advice immediately and show the container or the label. Wear suitable protective clothing. Safety glasses. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Keep away from heat and ignition sources - Do not smoke. Take precautions against static discharge. All electrical equipment must be flameproofed. Fumes can combine with air to form an explosive mixture. Avoid generation of vapours/aerosols. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid); observe all warnings and precautions listed for the product. Do Not attempt to clean empty containers since residue is difficult to remove. Do not pressurize or expose containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death. Do not expose to temperatures above 60 °C.

Conditions for safe storage, including any incompatibilities

Store in a locked cabinet or with access restricted to technical experts or their assistants. Store small containers in suitable flammable liquid storage cabinets when not in use. Store in well-sealed, dry containers, in a cool, well-ventilated location, away from any area where the fire hazard may be acute and protected from direct sunlight. Keep away from heat, sparks, open flames and all possible sources of ignition. Protect against physical damage. Separate from incompatibles. Do not store together with oxidizing and acidic materials or aluminium and magnesium powder. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid); observe all warnings and precautions listed for the product. Do Not attempt to clean empty containers since residue is difficult to remove.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 64-17-5
Ethanol
AU/SWA (Australia): 1000 ppm; 1880 mg/m3 TWA inhalation

CAS: 64-19-7
Acetic acid
AU/SWA (Australia): 15 ppm; 37 mg/m3 STEL inhalation; 10 ppm; 25 mg/m3 TWA inhalation

CAS: 67-56-1
Methanol
AU/SWA (Australia): 250 ppm; 328 mg/m3 STEL inhalation; 200 ppm; 262 mg/m3 TWA inhalation

Appropriate engineering controls
Maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection
Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Normally not required but if in doubt ensure hand protection should complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection
Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Respiratory protection
If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Greenish liquid.
Color	Green
Odor	Characteristic alcohol odour.
Odor threshold	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	Approx. 82°
Flammability	No data available.
Lower and upper explosion limit/flammability limit	Explosion Limit - Upper: ~44% [8E] Explosion Limit - Lower: 5.50%
Flash point	Approx. 12°C

Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: Approx. 0.80
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes
No data available.

Further safety characteristics (supplemental)
No data available.

SECTION 10: Stability and reactivity

Reactivity
Stable under normal conditions of storage and handling.

Risk of ignition. Vapours may form explosive mixtures with air

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
Vapours may form explosive mixture with air.

Conditions to avoid
Heat, high temperatures, flames, static discharge, sparks and other ignition sources, confined spaces, moisture and incompatibles.

Incompatible materials
Oxidising agents, peroxides, acids, acid chlorides, acid anhydrides, alkali metals, ammonia.

Ethanol: Alkali metals, Oxidizing agents, Peroxides

Methanol: Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids

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Acetic acid: Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols, Nitric acid

Hazardous decomposition products
Oxides of carbon.

Water: In the event of fire: see section 5

Acetic acid: Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Acute Toxicity - Oral: LD50 (rat): 7060 mg/kg - Ethanol
LD50 (rat): 131 mg/kg - Methanol
LD50 (rat): 3310 mg/kg - Acetic acid

Acute Toxicity - Inhalation: LC50/4 (rat): 83.8 mg/l - Methanol

Ingestion: Harmful if swallowed. May cause nausea, vomiting, headache, dizziness, gastric irritation and CNS depression. Over exposure to methanol can cause death or damage to kidneys, liver, lungs, eyes, brain
and nervous system.

Inhalation: Harmful if inhaled. Irritating to the mucous membranes and respiratory tract. May cause headaches, dizziness, nausea and possible CNS effects.
Methanol is toxic and can very readily form extremely high vapour concentrations at room temperature. Inhalation is the most common route of occupational exposure. At first, methanol causes mild central nervous system (CNS) depression with symptoms such as nausea, headache, vomiting, dizziness, incoordination and an appearance of drunkenness. A time period with no obvious symptoms follows (typically 8-24 hours, but may last several hours to 2 days). This latent period is then followed by development of metabolic acidosis and severe visual effects. Symptoms such as headache, dizziness, nausea and vomiting, followed in more severe cases by abdominal and muscular pain and difficult periodic breathing have been observed. Coma and death, usually due to respiratory failure, may occur if medical treatment is not received. Visual effects may include reduced reactivity and/or increased sensitivity to light, blurred, double and/or snowy vision, and blindness. Depending on the severity of poisoning and the promptness of treatment, survivors may recover completely or may have permanent blindness, vision disturbances and/or nervous system effects.

Ethanol: ACGIH: A3 Confirmed animal carcinogen with unknown relevance to humans.

Skin corrosion/irritation
Harmful in contact with skin. May cause irritation. Will have a degreasing action on the skin.

Serious eye damage/irritation
Methanol is a mild to moderate eye irritant, based on animal information. There is no human information available. Inhalation, ingestion or skin absorption of methanol can cause significant disturbances to vision, including blindness.

Respiratory or skin sensitization
Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Ethanol [61-17-5] in alcoholic beverages are evaluated in the IARC Monographs (Vol. 96) as Group 1: Carcinogenic to humans, (based on effects of drinking alcoholic beverages).
Safe Work Australia does not classify ethanol as a carcinogen.

Reproductive toxicity
Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure
May cause damage to organs.

Specific target organ toxicity (STOT) - repeated exposure
Not classified based on available information.

Aspiration hazard
Not classified based on available information.

Additional information

Ethanol - Though it is rapidly oxidized in the body and is therefore non-cumulative, ingestion of even moderate amounts causes lowering of inhibitions, often succeeded by dizziness, headache, or nausea. Larger intake causes loss of motor nerve control, shallow respiration, and in extreme cases unconsciousness and even death. Degree of intoxication is determined by concentration of alcohol in the brain. Of primary importance is the fact that intake of moderate amounts together with barbiturates or similar drugs is extremely dangerous and may even be fatal.
Methanol - Has been reported to cause death or serious irreversible injury such as blindness in humans. Studies in experimental animals indicate that the metabolism of methanol to formic acid results in metabolic acidosis and reversible or irreversible damage to the optic nerve. Ingestion of methanol, even in small amounts, can cause blindness and death. Onset of symptoms may be delayed for 18 - 24 hours and are similar in affect to ethanol poisoning.

Chronic Effects: Marked impairment of vision has been reported. Prolonged or repeated skin contact may cause dermatitis. Chronic exposure may cause effects similar to those of acute exposure. Methanol is only very slowly eliminated from the body. Because of this slow elimination, methanol should be regarded as a cumulative poison. Though a single exposure may cause no effect, daily exposures may result in the accumulation of a harmful amount.
Repeated or prolonged skin contact may cause chronic dermatitis. May cause liver and kidney disorders.

SECTION 12: Ecological information

Toxicity
No data available.

Persistence and degradability
This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
No data available.

Endocrine disrupting properties
No data available.

Other adverse effects
No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations
Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)
UN Number: 1992
Class: 3, 6.1
Packing Group: II
Proper Shipping Name: FLAMMABLE LIQUID, TOXIC, N.O.S. (Contains 65% ETHANOL, 25% METHANOL)

Hazchem emergency action code (EAC)
•3WE

IMDG
UN Number: 1992
Class: 3, 6.1
Packing Group: II
Proper Shipping Name: FLAMMABLE LIQUID, TOXIC, N.O.S. (Contains 65% ETHANOL, 25% METHANOL)

IATA
UN Number: 1992
Class: 3, 6.1
Packing Group: II
Proper Shipping Name: FLAMMABLE LIQUID, TOXIC, N.O.S. (Contains 65% ETHANOL, 25% METHANOL)

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP
Poison Schedule: S6

SECTION 16: Other information

22/2/24 - Added Cat 4 classifications, cleaned up text
20/11/24 - Added % content to PSN

Further information/disclaimer
ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.
Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.
Safe Work Australia, Workplace Exposure Standards for Airbourne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)