

## Safety Data Sheet **MAY GRUNWALD STAIN**

SDS no. G3VMGRQV • Version 1.0 • Date of issue: 2023-01-03

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### SECTION 1: Identification

#### GHS Product identifier

Product name MAY GRUNWALD STAIN

#### Recommended use of the chemical and restrictions on use

Staining of blood smears.

#### 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](http://www.chemsupply.com)

#### Emergency phone number

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

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### 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

- Flammable liquids, Cat. 2
- Acute toxicity, dermal, Cat. 3
- Acute toxicity, inhalation, Cat. 3
- Acute toxicity, oral, Cat. 3
- Specific target organ toxicity following single exposure, Cat. 1

#### GHS label elements, including precautionary statements

#### Pictograms



**Signal word**

**Danger**

**Hazard statement(s)**

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

**Precautionary statement(s)**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
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/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician
P302+P352	IF ON SKIN: Wash with plenty of water/soap
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.
P308+P311	IF exposed or concerned: Call a POISON CENTER/doctor/physician
P330	Rinse mouth.
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use water, foam or dry powder to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
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	Concentration
<b>Methanol (CAS no.: 67-56-1; EC no.: 200-659-6; Index no.: 603-001-00-X)</b>	<b>99.5 - 99.5 % (weight)</b>
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 %	
<b>May-Grunwald Stain (powder) (CAS no.: 62851-42-7)</b>	<b>0.5 - 0.5 % (weight)</b>

CLASSIFICATIONS: Acute toxicity, oral, Cat. 4; Serious eye damage/eye irritation, Cat. 2A. HAZARDS: H302 - Harmful if swallowed; H319 - Causes serious eye irritation.

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## 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).
If inhaled	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
In case of skin contact	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.
In case of eye contact	If in eyes, hold eyelids apart and flush eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor, or for at least 15 minutes.
If swallowed	If swallowed, do NOT induce vomiting.

### 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.

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## SECTION 5: Fire-fighting measures

### Suitable extinguishing media

Caution: Use of water spray when fighting fire may be inefficient.

Small fire: Use foam, dry chemical, CO<sub>2</sub> 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

Hazards from Combustion Products: 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).

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Methanol: 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.

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## 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.

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## **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.

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## **SECTION 8: Exposure controls/personal protection**

### **Control parameters**

#### **1. Methanol (CAS: 67-56-1)**

TWA (Inhalation): 200 ppm; 262 mg/m<sup>3</sup>; Australia (AU/SWA)

Other advisory: Sk

STEL (Inhalation): 250 ppm; 328 mg/m<sup>3</sup>; Australia (AU/SWA)

Other advisory: Sk

PEL-ST (Inhalation): 250 ppm (NIOSH)

REL-TWA (Inhalation): 200 ppm (NIOSH)

TLV® (Inhalation): 200 ppm (ACGIH)

TLV® (Inhalation): 250 ppm (ST) (ACGIH)

### **Appropriate engineering controls**

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

**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 comply 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.

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**SECTION 9: Physical and chemical properties**

**Basic physical and chemical properties**

Physical state	Liquid
Appearance	Dark blue liquid.
Color	No data available.
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. 65° at 100kPa
Flammability	No data available.
Lower and upper explosion limit/flammability limit	Lower: 6% - Upper: 36%
Flash point	Approx. 12°C
Explosive properties	No data available.
Auto-ignition temperature	464°C
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.

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**SECTION 10: Stability and reactivity**

**Reactivity**

Reacts with incompatible materials

**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.

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

**Hazardous decomposition products**

Oxides of carbon.

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**SECTION 11: Toxicological information**

**Information on toxicological effects**

**Acute toxicity**

Oral: LDLo (human): 143 mg/kg; (methanol)

Ingestion: Effects are the same as those described for 'Inhalation'. There is a wide range of individual susceptibility to the toxic effects of methanol (from a fatal dose of 15 mL of 40% methanol, to survival following ingestion of 500 mL of the same solution). In general, 300 to 1000 mg/kg is considered the range of minimum lethal dose for untreated cases of methanol poisoning. Methanol can probably be easily aspirated (breathed) into the lungs) during ingestion or vomiting, based on its physical properties and comparison to related alcohols. Aspiration of methanol could cause a potentially fatal accumulation of fluid in the lungs (pulmonary edema). Ingestion is not a typical route of occupational exposure.

Inhalation: A slight irritant to the mucous membranes. 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.

**Skin corrosion/irritation**

Methanol may be moderately irritating to the skin, based on unconfirmed animal information. No human information was located. Methyl alcohol is a defatting agent and may cause skin to become dry and cracked. Skin absorption can occur; symptoms may parallel inhalation exposure.

**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. Refer to 'Inhalation' above for additional information.

**Respiratory or skin sensitization**

Not expected to be a respiratory or skin sensitiser.

**Germ cell mutagenicity**

Not considered to be a mutagenic hazard.

There is insufficient information available to conclude that methanol is mutagenic. There is one positive report of mutagenicity in a study using live animals, but there are not enough details available to evaluate the study. Other studies using live animals have produced negative results. Negative results have been obtained in tests using cultured mammalian cells and bacteria. Oral administration of 1000 mg/kg increased the incidence of chromosomal aberrations, as well as the incidence of micronuclei in red blood cells in mice. This study is reported in an abstract and there are not enough details available to draw firm conclusions. Negative results were obtained in other studies where live mice or rats were exposed orally or by inhalation. Negative results have been obtained in most tests involving cultured mammalian cells. A high concentration (7.9 mg/mL) produced positive results in mouse lymphoma cells, in the presence of metabolic activation. Negative results have been obtained in tests using bacteria, with or without metabolic activation. Inconclusive results were obtained in one strain of bacteria, in the presence of metabolic activation.

**Carcinogenicity**

Not considered to be a carcinogenic hazard.

**Reproductive toxicity**

There is no human information available. No conclusions can be drawn based on the available animal information. No effects on reproductive performance were reported in a two-generation reproductive study. Rats were administered 10-1000 ppm by inhalation for 18-20 hours/day. Some studies suggest that inhalation of methanol may affect certain hormones (e.g. testosterone and lutenizing hormone) in male rats. The results have not been consistent or dose-related.

Not considered to be toxic to reproduction.

**Specific target organ toxicity (STOT) - single exposure**

Causes damage to organs: Eyes, Central Nervous System

**Specific target organ toxicity (STOT) - repeated exposure**

Not expected to cause toxicity to a specific target organ.

**Aspiration hazard**

Not expected to be an aspiration hazard.

**Additional information**

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.

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**SECTION 12: Ecological information**

**Toxicity**

Toxicity to fish flow-through test LC50 - *Lepomis macrochirus* (Bluegill) - 15,400.0mg/l -96h (US-EPA)

Toxicity to daphnia and other aquatic invertebrates - semi-static test EC50 - Daphnia magna (Water flea) - 18,260 mg/l - 96 h (OECD Test Guideline 202)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - ca. 22,000.0 mg/l - 96 h (OECD Test Guideline 201)

Toxicity to bacteria static test IC50 - activated sludge - > 1,000 mg/l - 3 h (OECD Test Guideline 209)  
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**Persistence and degradability**

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

Result: 99 % - Readily biodegradable. (OECD Test Guideline 301D)

**Bioaccumulative potential**

Cyprinus carpio (Carp) - 72 d at 20 °C - 5 mg/l(Methanol)

**Mobility in soil**

Will not adsorb on soil

**Results of PBT and vPvB assessment**

No data available.

**Endocrine disrupting properties**

No data available.

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**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.

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**SECTION 14: Transport information**

**ADG (Road and Rail)**

UN Number: 1230

Class: 3, 6.1

Packing Group: II

Proper Shipping Name: METHANOL

**Hazchem emergency action code (EAC)**

2WE

**IMDG**

UN Number: 1230

Class: 3, 6.1

Packing Group: II

EMS Number:

Proper Shipping Name: METHANOL



**IATA**

UN Number: 1230

Class: 3, 6.1

Packing Group: II

Proper Shipping Name: METHANOL

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**SECTION 15: Regulatory information**

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

**Australia SUSMP**

Poison Schedule: S6

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**SECTION 16: Other information**

**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.