UN GHS REVISION 7

Safety Data Sheet
Brady's Reagent

Version 1.0, Date of issue: 2026-08-18

SECTION 1: Identification

1.1 GHS Product identifier

Product name	Brady's Reagent
Product number	00468 00125
Brand	Chemnovo

1.3 Recommended use of the chemical and restrictions on use

Laboratory reagent

1.4 Supplier's details

Name	Hurst Scientific
Address	2 Transit Place, 6112 Forrestdale WA, Australia
Telephone	1300 778 068
email	sales@hurstscientific.com.au

1.5 Emergency phone number

Australian Poisons Information Centre 13 11 26
Australian Emergency Services 000

SECTION 2: Hazard identification

General hazard statement

Classified as a Hazardous substance according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

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

2.1 Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Flammable Liquid, Cat. 2
- Acute Toxicity (Oral), Cat. 3
- Acute Toxicity (Dermal), Cat. 3
- Acute Toxicity (Inhalation), Cat. 3
- Skin Corrosion/Irritation, Cat. 1A
- Serious Eye Damage/Irritation, Cat. 1
- STOT - Single Exposure, Cat. 1

2.2 GHS label elements, including precautionary statements

Pictograms

1. Flame; 2. Corrosion; 3. Skull and crossbones; 4. Health hazard

Signal word

Danger

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H314	Causes severe skin burns and eye damage.
H370	Causes damage to organs.

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/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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.
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.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water.
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 victim to fresh air and keep at rest in a position comfortable for breathing.
P307+P311	IF exposed: Call a POISON CENTRE/doctor.
P321	Specific treatment (see supplemental first-aid instructions on this label).
P361+P364	Take off immediately all contaminated clothing. And wash it before reuse.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use appropriate extinguishing media for the surrounding fire.
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 in accordance with local regulations.

2.3 Other hazards

No information available on PBT / vPvB status or endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Component	Concentration
2,4-Dinitrophenylhydrazine (CAS: 119-26-6)	**10%**
CLASSIFICATIONS: Acute Toxicity (Oral), Cat. 4. **HAZARDS:** H302 - Harmful if swallowed.	
Methanol (CAS: 67-56-1)	**70%**
CLASSIFICATIONS: Flammable Liquid, Cat. 2; Acute Toxicity (Inhalation), Cat. 3; Acute Toxicity (Dermal), Cat. 3; Acute Toxicity (Oral), Cat. 3; STOT – Single Exposure, Cat. 1. **HAZARDS:** H225 - Highly flammable liquid and vapour; H331 - Toxic if inhaled; H311 - Toxic in contact with skin; H301 - Toxic if swallowed; H370 - Causes damage to organs.	
Sulphuric acid (CAS: 7664-93-9)	**5%**
CLASSIFICATIONS: Skin Corrosion/Irritation, Cat. 1A. **HAZARDS:** H314 - Causes severe skin burns and eye damage.	
Water (CAS: 7732-18-5)	**Remainder**

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

Eye contact

Flush eyes with copious amounts of water for at least 15 minutes. Seek immediate medical attention.

Skin contact

Immediately remove all contaminated clothing, footwear and jewellery. Flush the affected area with copious amounts of water for at least 15 minutes. Seek immediate medical attention. Wash contaminated clothing before re-use.

Inhalation

Evacuate to fresh air immediately. If unconscious, place in recovery position and provide artificial respiration if breathing ceases. Seek medical attention.

Ingestion

DO NOT induce vomiting. Wash mouth out with copious amounts of water and seek medical attention.

First-aid facilities

Eye wash station, safety shower and First Aid kit.

4.2 Most important symptoms and effects, both acute and delayed

The most important symptoms and effects are described in Section 2 (hazard statements) and Section 11 (toxicological information).

4.3 Indication of immediate medical attention and special treatment needed

Methanol poisoning is a medical emergency. Seek immediate medical attention after any significant exposure even if the person appears well — there is a latent period, typically 12–24 hours, while methanol is metabolised to formic acid, and serious poisoning may develop after that delay. Blurred or dimmed vision, altered visual fields or loss of vision are warning signs of serious poisoning; the optic nerve and central nervous system are the target organs. Advice to doctor: methanol is very toxic by mouth and 60–120 mL (about 1 g/kg) may be a fatal dose; the severity of the outcome depends more on the delay before treatment than on the amount ingested. Specific treatment is available — inhibition of alcohol dehydrogenase with fomepizole (4-methylpyrazole) or ethanol, correction of metabolic acidosis, and haemodialysis where indicated. For advice, contact the Poisons Information Centre (Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Alcohol-resistant foam, dry chemical powder, carbon dioxide or water spray. Do not use water jets. Keep containers cool with water spray.

5.2 Specific hazards arising from the chemical

Vapour is heavier than air and may travel along the ground to distant ignition sources and flash back. Vapours may form explosive mixtures with air. Combustion may produce toxic and irritating gases, including oxides of carbon.

5.3 Special protective actions for fire-fighters

Fire fighters should wear self-contained breathing apparatus (SCBA) operated in positive-pressure mode and a chemical splash suit; a structural firefighter's uniform provides only limited protection against these materials. Fight the fire from a safe location. Use of water spray may be inefficient. If safe to do so, move containers from the fire area and cool them with flooding quantities of water until well after the fire is out. Prevent firefighting runoff from entering waterways, drains and sewers. Contain and collect fire-control water for later disposal.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid contact with skin and eyes. Wear suitable protective equipment (see Section 8). Evacuate non-essential personnel from the area. Remove all sources of ignition. Vapours may accumulate in low-lying areas and form explosive concentrations.

6.2 Environmental precautions

Prevent the spill from entering drains, sewers and waterways. In the event of a major spill, contain the material and notify the relevant authorities.

6.3 Methods and materials for containment and cleaning up

Contain the spill and prevent entry into drains, sewers and waterways. Absorb with inert absorbent material (e.g. sand, vermiculite or earth) and transfer to a suitable, labelled container for disposal. Rinse the affected area with water. Dispose of in accordance with Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Keep away from heat, sparks, open flame and other ignition sources — No smoking. Use flameproof electrical equipment and non-sparking tools. Bond and ground containers during transfer to prevent static discharge. Empty containers retain flammable residue — do not cut, weld or drill. Do not breathe mists or vapours. Wear appropriate protective clothing to avoid any contact.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area. Keep containers tightly closed and upright when not in use. Store away from incompatible materials (see Section 10). Inspect containers regularly for damage or leaks. Store in an area approved for flammable liquids (cabinet or purpose-built store), away from heat, ignition sources and direct sunlight; storage areas must be No Smoking. Vapour is heavier than air — beware accumulation in pits and confined spaces.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

2,4-Dinitrophenylhydrazine (CAS: 119-26-6)
AU/SWA (AU): No occupational exposure limit established.

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

Sulphuric acid (CAS: 7664-93-9)
AU/SWA (AU): TWA: 1 mg/m³; STEL: 3 mg/m³

Water (CAS: 7732-18-5)
AU/SWA (AU): No occupational exposure limit established.

8.2 Appropriate engineering controls

Ensure an adequate ventilation or exhaust system is in place.

8.3 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 Standard 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

Use occupational protective gloves complying with AS 2161 (Selection, Use and Maintenance).

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapour/mist filter should be used. 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.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Orange to red
Colour	No data available
Odour	No data available
Odour threshold	No data available
Melting point/freezing point	-98 °C
Boiling point or initial boiling point and boiling range	64.7 °C
Flammability	No data available
Lower and upper explosion limit/flammability limit	No data available
Flash point	11 °C
Explosive properties	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Oxidising properties	No data available
pH	No data available
Kinematic viscosity	No data available
Solubility	No data available
Partition coefficient n-octanol/water (log value)	No data available
Vapour pressure	No data available
Evaporation rate	No data available
Density and/or relative density	0.8 g/cm³
Relative vapour 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

10.1 Reactivity

Stable under normal conditions of storage and handling.

10.2 Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3 Possibility of hazardous reactions

None under normal use conditions.

10.4 Conditions to avoid

Heat. Open flame.

10.5 Incompatible materials

Strong oxidising agents, strong acids, strong bases.

10.6 Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Toxic if swallowed; Toxic in contact with skin; Toxic if inhaled; 5628 mg/kg (rat, LD50 oral) (Methanol); Dermal LD_{50}: 15800 mg/kg (rabbit, LD50 skin) (Methanol); 64000 ppm/4H (rat, LC50 inhalation) (Methanol)

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Not expected to be a respiratory or skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

No indication of carcinogenicity to humans (not listed by IARC).

Reproductive toxicity

Not considered to be toxic to reproduction.

Specific target organ toxicity (STOT) - single exposure

Causes damage to organs.

Specific target organ toxicity (STOT) - repeated exposure

Not expected to cause toxicity to a specific target organ through repeated exposure.

Aspiration hazard

Not expected to be an aspiration hazard.

SECTION 12: Ecological information

Toxicity

EC50; Species: Chlorella fusca ssp. vacuolata (Green Algae) strain 21115; Conditions: freshwater, static, 28 °C, pH 6.9; Concentration: 0.77 umol/L for 24 hr; Effect: decreased population growth rate; EC50; Species: Chlorella pyrenoidosa (Green Algae) 65000-78000 cells/mL; Conditions: static, 25 °C; Concentration: 3.6 umol/L for 24 hr (95% confidence interval: 3.46-3.74 µg/L; Effect: general growth; EC50; Species: Pseudokirchneriella subcapitata (Green Algae) 15000 cells/mL; Conditions: freshwater, static, 24 °C; Concentration: 3010 µg/L for 48 hr (95% confidence interval: 1910-5570 µg/L); Effect: physiology photosynthesis (Methanol)

Persistence and degradability

AEROBIC: The half-life for methanol applied to a sandy loam from Mississippi (68% sand, 23.4% silt, 8.6% clay, 0.94% organic carbon, pH 4.8) was 3.2 days. The half-life of methanol applied to a sandy silt loam from Texas (61.5% sand, 31.1% silt, 7.4% clay, 3.28% organic carbon, pH 7.8) was 1 day. The moisture content of each soil was maintained at approximately 80% of its field capacity over the 64 day incubation period, and the half-lives did not account for any potential volatilisation loss

Bioaccumulative potential

Measured BCF values of less than 10 were reported for fish (golden ide (Leuciscus idus melanotus)) exposed to 0.05 mg/L of methanol for three days in an aquatic tank. According to a classification scheme, this BCF suggests the potential for bioconcentration in aquatic organisms is low

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

Product disposal

Dispose of in accordance with local authority guidelines. Empty containers may still represent a hazard.

Packaging disposal

Dispose of in accordance with local authority guidelines. Empty containers may retain product residue and vapour. Do not cut, weld, braze, solder, drill or reuse containers.

Waste treatment

Dispose of in accordance with local authority guidelines.

Sewage disposal

Do not contaminate drains and waterways.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers. Empty containers retain liquid and/or vapour residue and are not to be pressure cut, welded, brazed, soldered, drilled or exposed to heat, flame, sparks, electricity or any other source of ignition. Rinse containers thoroughly with cold water when empty.

SECTION 14: Transport information

ADG (Australian Dangerous Goods Code, 7th Edition)

UN Number	UN1230
Proper shipping name	METHANOL
Transport hazard class	3
Packing group	II
Subsidiary risk	6.1
Special provisions	279
Hazchem code	●2WE
Environmental hazards	Not classified

IMDG (International Maritime Dangerous Goods Code)

UN Number	UN1230
Proper shipping name	METHANOL
Transport hazard class	3
Packing group	II
Marine pollutant	No

IATA (International Air Transport Association Dangerous Goods Regulations)

UN Number	UN1230
Proper shipping name	METHANOL
Transport hazard class	3
Packing group	II

SECTION 15: Regulatory information

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

2,4-Dinitrophenylhydrazine (CAS: 119-26-6)

Australia SUSMP — Poison Schedule: Not Scheduled (NS)

Methanol (CAS: 67-56-1)

Australia SUSMP — Poison Schedule: Schedule 6

Sulphuric acid (CAS: 7664-93-9)

Australia SUSMP — Poison Schedule: Schedule 6

Water (CAS: 7732-18-5)

Australia SUSMP — Poison Schedule: Not Scheduled (NS)

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this product.

SECTION 16: Other information

16.1 Further information/disclaimer

References

1. Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, (June 2023).
2. Safe Work Australia, National Code of Practice for the Labelling of Workplace Hazardous Chemicals (2015).
3. Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants (2013).
4. National Transport Commission Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code), Volume 1, Edition 7.9 (2023).
5. Standards Australia, Dangerous Goods Initial Emergency Response Guide: Australian Handbook (SAA/SNZ HB76); Homebush (2004).

16.2 Preparation information

This SDS is prepared in accordance with the Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, (June 2023). The information contained within is believed to be accurate at the date of preparation/review. Hurst Scientific makes no claims of the accuracy or completeness of the information and excludes all liability for any loss or damage related to the supply or use of the information in this safety data sheet. It is recommended the user make their own determinations as to the suitability of the information provided to the application in which the product is to be used.