
1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name SEMI-BRIGHT NICKEL BTL B MAINT
Synonyms 701862 - PRODUCT CODE • SEMI BRIGHT NICKEL BTL B MAINT

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
Website <http://duboischchemicals.com.au/>

1.4 Emergency telephone numbers

Emergency 13 11 26 (Poisons Information Centre)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

Physical Hazards

Not classified as a Physical Hazard

Health Hazards

Acute Toxicity: Oral: Category 4
Skin Corrosion/Irritation: Category 2
Skin Sensitisation: Category 1
Serious Eye Damage / Eye Irritation: Category 2A
Carcinogenicity: Category 1B

Environmental Hazards

Not classified as an Environmental Hazard

2.2 GHS Label elements

Signal word DANGER

Pictograms**Hazard statements**

H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H350i May cause cancer by inhalation.

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Prevention statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response statements

P301 + P312	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of water.
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 + P313	IF exposed or concerned: Get medical advice/ attention.
P321	Specific treatment is advised - see first aid instructions.
P330	Rinse mouth.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Storage statements

P405	Store locked up.
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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
CHLORAL HYDRATE	302-17-0	206-117-5	20 to 30%
FORMALDEHYDE	50-00-0	200-001-8	0.1 to <=1%
NON HAZARDOUS INGREDIENTS	Not Available	Not Available	Remainder

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye	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.
Inhalation	If inhaled, remove from contaminated area. To protect rescuer, use a Type A-Class P3 (Organic vapour, Particulate) respirator or an Air-line respirator where an inhalation risk exists. Apply artificial respiration if not breathing.
Skin	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.
Ingestion	For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
First aid facilities	Eye wash facilities and safety shower should be available.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

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5.2 Special hazards arising from the substance or mixture

Non flammable. May evolve toxic gases (carbon oxides, hydrogen chloride, chlorides, phosgene, hydrocarbons) when heated to decomposition. May evolve halogenated compounds 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

None allocated.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

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 tightly sealed in a cool, dark, well ventilated area, removed from direct sunlight and foodstuffs. Containers should be opaque as product may decompose in UV light. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. 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 ³	ppm	mg/m ³
Formaldehyde	SWA [AUS]	1	1.2	2	2.5
Formaldehyde	SWA [Proposed]	0.1	0.12	0.3	0.37

Biological limits

No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering controls Avoid inhalation. Use in well ventilated areas.

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Eye / Face	Wear splash-proof goggles.
Hands	Wear PVC or rubber gloves.
Body	In a laboratory situation, wear a laboratory coat.
Respiratory	Not required under normal conditions of use.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	COLOURLESS LIQUID
Odour	ODOURLESS
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	NOT AVAILABLE
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	2 to 5
Vapour density	NOT AVAILABLE
Relative density	1.107 to 1.133
Solubility (water)	NOT AVAILABLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT AVAILABLE
Lower explosion limit	NOT AVAILABLE
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

9.2 Other information

VOC	257.6 g/L
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10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization will not occur.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Aqueous solutions of chloral hydrate decompose rapidly when exposed to ultraviolet light, with the formation of hydrochloric acid, trichloroacetic acid and formic acid. Chloral hydrate slowly volatilises on exposure to air.

10.6 Hazardous decomposition products

May evolve toxic gases (carbon oxides, hydrogen chloride, chlorides, phosgene, hydrocarbons) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity Harmful if swallowed. If administered as a medication, and used by appropriately trained persons in accordance with relevant medical advice, health effects from occupational exposure are considered unlikely. Refer to medical doctor/specialist for advice regarding adverse side effects.

Information available for the ingredients:

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
CHLORAL HYDRATE	479 mg/kg (rat)	--	--
FORMALDEHYDE	260 mg/kg (guinea pig) [AICIS]	270 mg/kg (rabbit) [AICIS]	0.497 mg/kg/4 hours (mouse) [AICIS]

Skin Contact may result in irritation, rash and dermatitis.

Eye Contact may result in irritation, lacrimation, pain and redness.

Sensitisation Formaldehyde may cause an allergic skin reaction. Not classified as a respiratory sensitiser.

Mutagenicity Not classified as a mutagen.

Carcinogenicity May cause cancer. Formaldehyde is classified as a confirmed human carcinogen (IARC Group 1). Chloral and chloral hydrate are classified as probably carcinogenic to humans (IARC Group 2A).

Reproductive Not classified as a reproductive toxin.

STOT - single exposure Chloral Hydrate is a hypnotic and sedative with CNS depressant properties similar to barbiturates. The mechanism of action of the drug is not completely known, however the CNS depressant effects of Chloral Hydrate are believed to be mainly due to the active metabolite trichloroethanol. May cause nausea, vomiting and diarrhoea due to gastric irritation.

STOT - repeated exposure Not classified as causing organ damage from repeated exposure.

Aspiration Not classified as causing aspiration.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Chloral hydrate: The toxicity values (most conservative value) of fish, invertebrates and algae are LC50 = 97 mg/L, EC50 = 99 mg/L and ErC50 = 96 mg/L, respectively. These values suggest that the chemical is not expected to exhibit Aquatic toxicity (REACH).

12.2 Persistence and degradability

Not expected to be persistent in the aquatic environment.

12.3 Bioaccumulative potential

The estimated log Kow values for 2,2,2-trichloroethane-1,1-diol (Chloral hydrate) is less than 4 (Log Kow = 0.99). The potential for Chloral hydrate to bioaccumulate in the tissues of organisms that inhabit aquatic or terrestrial matrices is negligible as the BCF factor for the substance is less than 2000 (REACH).

12.4 Mobility in soil

Chloral hydrate is not expected to adsorb to suspended solids and sediment.

12.5 Other adverse effects

Avoid contamination of drains and waterways.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. For large quantities, contact the manufacturer/supplier for additional information. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

PRODUCT NAME SEMI-BRIGHT NICKEL BTL B MAINT

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	None allocated.	None allocated.	None allocated.
14.2 Proper Shipping Name	None allocated.	None allocated.	None allocated.
14.3 Transport hazard class	None allocated.	None allocated.	None allocated.
14.4 Packing Group	None allocated.	None allocated.	None allocated.

14.5 Environmental hazards

Not a Marine Pollutant.

14.6 Special precautions for user

Hazchem code None allocated.
EmS F-A, S-A

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.
EUROPE: EINECS (European Inventory of Existing Chemical Substances)
All components are listed on EINECS, or are exempt.

16. OTHER INFORMATION

Additional information EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: Strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

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 SEMI-BRIGHT NICKEL BTL B MAINT**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 ³	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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