According to Safe Work Australia

Revision: 07.11.2016 Printing date 07.11.2016

1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: BS 82V 4AH BATTERY Other Means of Identification: Mixture

Other Name: Briggs and Stratton 82V Lithium - ion Battery 4.0 Ah

Part Number: 1760427/BSB4AH82

Recommended Use of the Chemical and Restriction on Use:

Recommended for use in Briggs and Stratton and Victa outdoor domestic power tools.

Details of Manufacturer or Importer:

Briggs and Stratton Australia Pty Ltd 1 Moorebank Avenue

Moorebank NSW 2170

Phone Number: 02 8778 5555

Emergency telephone number: National Poison Information Centre: 13 11 26

2. HAZARDS IDENTIFICATION

Hazardous Nature:

Classified as Hazardous 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 Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).



Respiratory Sensitisation 1 H334 May cause allergy or asthma symptoms or breathing difficulties if

inhaled.

Germ Cell Mutagenicity 1A

H340 May cause genetic defects.

Carcinogenicity 2

H351 Suspected of causing cancer.

Toxic To Reproduction 1B

H360 May damage fertility or the unborn child.

STOT RE 2

H373 May cause damage to organs through prolonged or repeated

exposure.

Aspiration Hazard 1 H304 May be fatal if swallowed and enters airways.



Skin Corrosion/Irritation 1A H314 Causes severe skin burns and eye damage.

Serious Eye Damage/Irritation 1 H318 Causes serious eye damage.



H400 Very toxic to aquatic life. Aquatic Acute 1

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



H302 Harmful if swallowed. Acute Toxicity (Oral) 4

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Acute Toxicity (Inhalation) 4 H332 Harmful if inhaled.

Skin Sensitisation 1 H317 May cause an allergic skin reaction.
STOT SE 3 H336 May cause drowsiness or dizziness.

Signal Word Danger

Hazard Statements

H302+H332 Harmful if swallowed or if inhaled.

H314 Causes severe skin burns and eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H340 May cause genetic defects. H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child. H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P284 [In case of inadequate ventilation] wear respiratory protection.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.
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.

P272 Contaminated work clothing should not be allowed out of the workplace.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P363 Wash contaminated clothing before reuse.

P308+P313 IF exposed or concerned: Get medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P314 Get medical advice/attention if you feel unwell.

P391 Collect spillage.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national regulations.

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3. COMPOSITION AND INFORMATION ON INGREDIENTS

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Chamicai	(:nara	cterization:	MINTIFAC

Hazardous C	Components:	
7439-89-6	Iron	10 - 30%
	Flammable Solids 1, H228	
14807-96-6	Talc (Mg3H2(SiO3)4)	10 - 30%
108-88-3	Benzene, methyl- Flammable Liquids 2, H225; Toxic To Reproduction 1A, H360; STOT RE 2, H373; Skin Corrosion/Irritation 2, H315	10 - 30%
78-93-3	2-Butanone Flammable Liquids 2, H225; Serious Eye Damage/Irritation 2, H319; STOT SE 3, H335-H336	10 - 30%
110-82-7	Cyclohexane Flammable Liquids 2, H225; Aspiration Hazard 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Corrosion/Irritation 2, H315; STOT SE 3, H336	10 - 30%
110-54-3	Hexane Flammable Liquids 2, H225; Toxic To Reproduction 2, H361; STOT RE 2, H373; Aspiration Hazard 1, H304; Aquatic Chronic 2, H411; Skin Corrosion/Irritation 2, H315; STOT SE 3, H336	10 - 30%
14808-60-7	Quartz (SiO2)	10 - 30%
12190-79-3	Lithium colbaltite Respiratory Sensitisation 1, H334; Skin Sensitisation 1, H317	5 - 10%
182442-95-1	Cobalt lithium manganese nickel oxide • Acute Toxicity (Oral) 4, H302; Skin Sensitisation 1, H317	5 - 10%
7440-02-0	Nickel	<10%
7440-22-4	Silver	<10%
13463-67-7	Titanium oxide (TiO2)	<10%
7782-42-5	Graphite	<10%
26265-08-7	Phenol, 4,4'-(1-methylethylidene)bis[2,6-dibromo-, polymer with (chloromethyl) oxirane and 4,4'-(1-methylethylidene)bis[phenol] Skin Corrosion/Irritation 2, H315	<10%
7727-43-7	Sulfuric acid, barium salt (1:1)	<10%
7440-31-5	Tin	<10%
7429-90-5	Aluminium foil	<10%
77-58-7	Dibutyltin dilaurate Solution Germ Cell Mutagenicity 2, H341; Toxic To Reproduction 1B, H360; STOT SE 1, H370; STOT RE 1, H372; Skin Corrosion/Irritation 1A, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sensitisation 1, H317	<10%
	Carbon black Self-heat. 2, H252	<10%
65997-05-9	Rosin, polymerized Skin Sensitisation 1, H317	<10%

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	(Coi	ntd. of page 3)
7440-44-0	Activated carbon	<10%
	♦ Self-heat. 1, H251	
7440-21-3	Silicon	<10%
	♦ Flammable Solids 2, H228	
12047-27-7	Barium titanium trioxide	<10%
	♦ Acute Toxicity (Oral) 4, H302; Acute Toxicity (Inhalation) 4, H332	
7440-43-9	Cadmium	<1%

Additional information:

The battery is sealed hermetically and designed to withstand temperatures and pressures encountered during normal use. Thus, the ingredients have no hazard potential except if the battery is violated or dismantled. If exposed to a fire, mechanical shocks, and electric stress by miss-use, the battery cell case will be breached and the hazardous materials may be released and acrid gas may be emitted. Therefore the batteries should not short circuit, recharge, puncture, incinerate, immerse in water, force discharge or expose to temperatures above the temperature range of the cell or battery.

4. FIRST AID MEASURES

Inhalation:

If inhaled, remove to fresh air. Make the victim blow their nose and gargle. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

Ingestion:

If swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: The contents of a ruptured battery is harmful if inhaled. May cause respiratory irritation, drowsiness and dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Contact: Direct skin contact with the contents of a ruptured battery causes severe skin burns. May cause an allergic skin reaction.

Eye Contact: Direct contact with the contents of a ruptured battery causes serious eye damage.

Ingestion: The contents of a ruptured battery is harmful if swallowed. May be fatal if swallowed and enters airways.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water, foam, dry chemical powder, nitrogen gas or carbon dioxide gas.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include acrid or harmful gases.

The contents of the battery are highly flammable.

Batteries may explode when exposed to extreme heat. Batteries close to fire should be removed if safe to do so.

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved respiratory protection, solvent resistant gloves, protective clothing (overall), and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

Pick up any damaged batteries that are not hot or burning and place in a suitable container for disposal. Any spilt liquid can be wiped up with dry cloth or paper towels.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

Do not damage or remove the external tube.

Do not disassemble or reconstruct the battery or solder the battery directly.

Do not subject batteries to mechanical shock. Do not deform, crush or mutilate batteries.

Do not dispose of batteries in fire.

Do not use unauthorised charger or charging method. If the charging process doesn't end within the specified time terminate charging.

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.

Take precautionary measures against static discharge. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Contaminated work clothing must not be allowed out of the workplace. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Protect from high humidity, heat, sparks, open flames and other sources of ignition. Keep away from strong oxidising agents, strong acids, conductive materials and water.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:
7440-31-5 Tin
WES TWA: 2 mg/m³
7440-50-8 Copper
WES TWA: 1* 0.2** mg/m³ *dust&mists **fume
14807-96-6 Talc (Mg3H2(SiO3)4)
WES TWA: 2.5 mg/m³
7440-21-3 Silicon
WES TWA: 10 mg/m ³
108-88-3 Benzene, methyl-
WES STEL: 574 mg/m³, 150 ppm TWA: 191 mg/m³, 50 ppm Sk
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78-93-3 2-Butanone WES STEL: 890 mg/m³, 300 ppm TWA: 445 mg/m³, 150 ppm 110-82-7 Cyclohexane WES STEL: 1050 mg/m³, 300 ppm TWA: 350 mg/m³, 100 ppm 110-54-3 Hexane WES TWA: 72 mg/m³, 20 ppm 14808-60-7 Quartz (SiO2) WES TWA: 0.1 mg/m³ respirable dust 7440-02-0 Nickel WES TWA: 10 mg/m³ Metal: Sen 7440-22-4 Silver WES TWA: 0.1 mg/m³ 3463-67-7 Titanium oxide (TiO2) WES TWA: 0.1 mg/m³ 7782-42-5 Graphite WES TWA: 3 mg/m³ 7782-43-7 Sulfuric acid, barium salt (1:1) WES TWA: 10* 5** mg/m³ 7429-90-5 Aluminium foil WES TWA: 0.1 mg/m³ *metal dust; **welding, pyro powders 77-58-7 Dibutyltin dilaurate WES STEL: 0.2 mg/m³ TWA: 0.1 mg/m³ as Sn, Sk: Note (g) 1333-86-4 Carbon black WES TWA: 0.0 mg/m³ 7440-43-9 Cadmium WES TWA: 0.0 mg/m³ Note (g); as Cd		(Contd. of page 5)
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WES TWA: 72 mg/m³, 20 ppm		
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7440-43-9 Cadmium WES TWA: 0.01 mg/m³	1333-86-4 Carbon black	
WES TWA: 0.01 mg/m³	WES TWA: 3 mg/m³	
	7440-43-9 Cadmium	

Engineering Controls:

Not necessary under normal use. In the case of abuse, ensure adequate mechanical ventilation (local exhaust) for a battery that emits gas or fumes.

Respiratory Protection:

None necessary for normal use. In the case of abuse and leakage of liquid or emission of fumes, use an approved vapour respirator. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

None under normal use. In case of spill wear protective clothing, such as PVC or nitrile gloves, chemical resistant clothing, apron and safety boots. See Australian/New Zealand Standards AS/NZS 2161 and 4501 for more information.

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Eye and Face Protection: Eye protection is not required under normal use conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Solid cuboid
Colour: Green/black
Odour: No special odour

Odour Threshold:
pH-Value:
No information available
Highly flammable.

Auto-ignition Temperature: No information available

Decomposition Temperature: 450 °C

Explosion Limits:

Lower:
Upper:
No information available
Vapour Density:
No information available
Evaporation Rate:
No information available

Solubility in Water: Insoluble

Partition Coefficient (n-octanol/water): No information available

10 . STABILITY AND REACTIVITY

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: High humidity, heat, sparks, open flames and other sources of ignition. **Incompatible Materials:** Strong oxidising agents, strong acids, conductive materials and water.

Hazardous Decomposition Products:

Acrid or harmful gases are emitted in a fire. Contact with water generates hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION

Toxicity:

LD ₅₀ /LC ₅₀	LD ₅₀ /LC ₅₀ Values Relevant for Classification:		
1333-86-4	1333-86-4 Carbon black		
Oral	LD ₅₀	10000 mg/kg (rat)	
7440-22-4	7440-22-4 Silver		
Oral	LD ₅₀	>2000 mg/kg (rat)	
7440-21-3	7440-21-3 Silicon		
Oral	LD ₅₀	3160 mg/kg (rat)	
108-88-3 E	108-88-3 Benzene, methyl-		
Oral	LD ₅₀	5000 mg/kg (rat)	
Dermal	LD_{50}	12124 mg/kg (rabbit)	
Inhalation	LC ₅₀ /4 h	5320 mg/l (mouse)	

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78-93-3 2-	78-93-3 2-Butanone		
Oral	LD ₅₀	3300 mg/kg (rat)	
Dermal	LD ₅₀	5000 mg/kg (rabbit)	
110-82-7 (Cyclohex	ane	
Oral	LD ₅₀	12705 mg/kg (rat)	
7440-43-9	7440-43-9 Cadmium		
Oral	LD ₅₀	225 mg/kg (rat)	
13463-67-	13463-67-7 Titanium oxide (TiO2)		
Oral	LD ₅₀	>20000 mg/kg (rat)	
Dermal	LD ₅₀	>10000 mg/kg (rabbit)	
Inhalation	LC₅₀/4 h	>6.82 mg/l (rat)	
77-58-7 Di	77-58-7 Dibutyltin dilaurate		
Oral	LD ₅₀	175 mg/kg (rat)	
Oral Dermal Inhalation 77-58-7 Di	LD ₅₀ LD ₅₀ LC ₅₀ /4 h	>20000 mg/kg (rat) >10000 mg/kg (rabbit) >6.82 mg/l (rat) dilaurate	

Acute Health Effects

Inhalation:

The contents of a ruptured battery is harmful if inhaled. May cause respiratory irritation, drowsiness and dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin:

Direct skin contact with the contents of a ruptured battery causes severe skin burns. May cause an allergic skin reaction.

Eye: Direct contact with the contents of a ruptured battery causes serious eye damage.

Ingestion:

The contents of a ruptured battery is harmful if swallowed. May be fatal if swallowed and enters airways.

Skin Corrosion / Irritation: Causes severe skin burns.

Serious Eye Damage / Irritation: Causes serious eye damage.

Respiratory or Skin Sensitisation:

May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ Cell Mutagenicity: May cause genetic defects.

Carcinogenicity:

Suspected of causing cancer.

Nickel is classified by Safe Work Australia as Carcinogen Category 3.

Silica dust, crystalline, in the form of quartz or cristobalite, cadmium and cadmium compounds are classified by IARC as Group 1 - Carcinogenic to humans.

Nickel, metallic and alloys, carbon black and titanium dioxide are is classified by IARC as Group 2B - Possibly carcinogenic to humans.

Talc not containing asbestos or asbestiform fibres, polychloroprene, toluene and polyethylene are classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity:

May damage fertility or the unborn child.

Benzene, methyl- is classified by Safe Work Australia as Toxic to Reproduction Category 1.

n-Hexane is classified by Safe Work Australia as Toxic to Reproduction Category 3.

Specific Target Organ Toxicity (STOT) - Single Exposure: May cause drowsiness and dizziness.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure.

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Aspiration Hazard: May be fatal if swallowed and enters airways.

Chronic Health Effects:

Prolonged overexposure to decomposition products may adversely affect the lungs, blood, cardiovascular and nervous system.

Existing Conditions Aggravated by Exposure: No information available

Additional toxicological information: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Aquatic toxicity: Very Toxic to aquatic life with long lasting effects.

Persistence and Degradability: No further relevant information available. Bioaccumulative Potential: No further relevant information available.

Mobility in Soil: No further relevant information available.

Other adverse effects:

The battery cell and internal materials will remain in the environment. Do not bury or dispose of batteries in the environment.

13. DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:

Please consult your state Land Waste Management Authority for more information.

14. TRANSPORT INFORMATION

UN Number

ADG, IMDG, IATA UN3480 or UN3481

Proper Shipping Name

ADG, IMDG, IATA LITHIUM ION BATTERIES (including lithium ion polymer

batteries) or LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or LITHIUM ION BATTERIES PACKED WITH

EQUIPMENT

Dangerous Goods Class

ADG Class: 9 Miscellaneous dangerous substances and articles.

Packing Group: Not applicable

Marine pollutant: Yes

Symbol (fish and tree)

EMS Number: F-A,S-I

Special Provisions: ADG: 188, 230, 310/360, 348, 376, 377

IMDG: 188

IATA: This product can be transported as NON-DANGEROUS GOODS under "Packing instruction 965 section II" or as DANGEROUS GOODS under "Packing instruction 965 section

IB".

Packagings & IBCs - Packing Instruction: ADG: P903, P908, P909, LP903, LP904

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15. REGULATORY INFORMATION

Australian I	Australian Inventory of Chemical Substances:		
7440-31-5	Tin		
7440-50-8	Copper		
7440-44-0	Activated carbon		
7439-89-6	Iron		
14807-96-6	Talc (Mg3H2(SiO3)4)		
7440-21-3	Silicon		
12047-27-7	Barium titanium trioxide		
108-88-3	Benzene, methyl-		
78-93-3	2-Butanone		
110-82-7	Cyclohexane		
110-54-3	Hexane		
14808-60-7	Quartz (SiO2)		
12190-79-3	Lithium colbaltite		
29690-82-2	formaldehyde, polymer with 2-(chloromethyl)oxirane and 2-methylphenol		
7440-02-0	Nickel		

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule: Not Scheduled.

16. OTHER INFORMATION

Date of Preparation or Last Revision: 07.11.2016

Prepared by: MSDS.COM.AU Pty Ltd www.msds.com.au

Abbreviations and acronyms:

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC₅₀: Lethal concentration, 50 percent

LD₅₀: Lethal dose, 50 percent IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Flammable Liquids 2: Flammable liquids – Category 2

Flammable Solids 1: Flammable solids - Category 1

Flammable Solids 2: Flammable solids - Category 2

Self-heat. 1: Self-heating substances and mixtures, Hazard Category 1

Self-heat. 2: Self-heating substances and mixtures, Hazard Category 2

Acute Toxicity (Oral) 4: Acute toxicity – Category 4
Skin Corrosion/Irritation 1A: Skin corrosion/Irritation – Category 1A

Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2

Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation - Category 1 Serious Eye Damage/Irritation 2: Serious eye damage/eye irritation - Category 2

Respiratory Sensitisation 1: Respiratory sensitisation, Hazard Category 1

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

Germ Cell Mutagenicity 1A: Germ cell mutagenicity – Category 1A Germ Cell Mutagenicity 2: Germ cell mutagenicity – Category 2

Carcinogenicity 2: Carcinogenicity - Category 2

Toxic To Reproduction 1A: Reproductive toxicity - Category 1A

Toxic To Reproduction 1B: Reproductive toxicity - Category 1B

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Toxic To Reproduction 2: Reproductive toxicity – Category 2
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aspiration Hazard 1: Aspiration hazard – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term (Chronic). Category 2

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011"

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