

Infosafe No™ IMIRW	Issue Date : October 2018	ISSUED by IMCDAST
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 Product Name : **Butanox M-50 VRN**

Classified as hazardous

1. Identification

GHS Product Identifier	Butanox M-50 VRN
Product Code	5407275
Company Name	IMCD Australia Pty Ltd (ABN 44 000 005 578)
Address	1st Floor, 352 Wellington Road Mulgrave VIC 3170 AUSTRALIA
Telephone/Fax Number	Tel: (03) 8544 3100 (Business hours) Fax: (03) 8544 3299
Emergency phone number	1800 625 526
Emergency Contact Address	NEW ZEALAND Emergency Response: 0800 500 288 IMCD New Zealand Limited 459 Great South Road Penrose, Auckland Ph: (09) 582 0250 Fax (09) 525 0030
E-mail Address	reg@imcd.com.au
Recommended use of the chemical and restrictions on use	Curing agent.
Additional Information	It is the user's responsibility to determine the suitability of this product for their applications and their methods of use.

2. Hazard Identification

GHS classification of the substance/mixture	Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand. Organic Peroxides: Type D Acute Toxicity - Oral: Category 4 Skin Corrosion/Irritation: Category 1B Eye Damage/Irritation: Category 1 Acute Toxicity - Inhalation: Category 4 Hazardous to the Aquatic Environment - Acute Hazard: Category 2
Signal Word (s)	DANGER
Hazard Statement (s)	H242 Heating may cause a fire. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H332 Harmful if inhaled. H401 Toxic to aquatic life.
Pictogram (s)	Flame, Exclamation mark, Corrosion



Precautionary statement – Prevention	P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P220 Keep/Store away from clothing//combustible materials. P234 Keep only in original container. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash contaminated skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment.
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Precautionary statement – Response	P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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. P310 Immediately call a POISON CENTER or doctor/physician. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth. P363 Wash contaminated clothing before reuse.
Precautionary statement – Storage	P405 Store locked up. P410 Protect from sunlight. P411+P235 Store at temperatures not exceeding 25°C. Keep cool. P420 Store away from other materials.
Precautionary statement – Disposal	P501 Dispose of contents and container according to local regulations.

3. Composition/information on ingredients

Composition, information on ingredients Chemical nature: Mixture

Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Dimethylphthalate	131-11-3	55-70 %
	Methyl ethyl ketone peroxide	1338-23-4	30-36 %
	Methyl ethyl ketone	78-93-3	1-5 %

4. First-aid measures

First Aid Measures	Call a physician immediately. You should call a doctor or Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. Have the Safety Data Sheet with you when you call.
Inhalation	Immediate medical attention is required. Move out of dangerous area. Remove to fresh air. If not breathing, give artificial respiration. Oxygen may additionally be given, by trained personnel, if it is available. Get medical attention immediately.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Take victim immediately to hospital. Do not induce vomiting! May cause chemical burns in mouth and throat.
Skin	Take off contaminated clothing and shoes immediately. Rinse immediately with plenty of water. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Eye contact	Rinse with plenty of water. Get medical attention immediately. Continue to rinse during transport. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
Advice to Doctor	Treat symptomatically.
Most important symptoms/effects, acute and delayed	The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

5. Fire-fighting measures

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Fire Fighting Measures	Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Hazards from Combustion Products	Fire will produce smoke containing hazardous combustion products (see section 10).
Special Protective Equipment for fire fighters	In the event of fire, wear self-contained breathing apparatus.
Specific hazards arising from the chemical	CAUTION: reignition may occur. Supports combustion. Water spray may be ineffective unless used by experienced firefighters. Do not allow run-off from fire-fighting to enter drains or water courses. Hazardous decomposition products formed under fire conditions.
Hazchem Code	2WE

6. Accidental release measures

Emergency Procedures	Evacuate personnel to safe areas. Only qualified personnel equipped with suitable protective equipment may intervene. Prevent unauthorised persons entering the zone.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material and dispose of as hazardous waste. Keep wetted with water. Confinement must be avoided. Never return spills in original containers for re-use.
Personal Precautions	Use personal protective equipment. Wear respiratory protection. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental Precautions	Prevent product from entering drains. If the product contaminates rivers and lakes or drains inform respective authorities.
Other Information	For disposal considerations see section 13. For personal protection see section 8.

7. Handling and storage

Precautions for Safe Handling	For personal protection see section 8. Avoid formation of aerosol. Do not breathe vapours or spray mist. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Use explosion protected equipment. Keep away from sources of ignition - No smoking. No sparking tools should be used. Keep away from reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal soaps). Do not cut or weld on or near this container even when empty. Keep away from combustible material.
Conditions for safe storage, including any incompatibilities	No smoking. Keep in a well-ventilated place. Electrical installations / working materials must comply with the technological safety standards. Keep only in original container. Store away from other materials.
Storage Temperatures	Maximum storage temperature: 25°C.
Additional information on precautions for use	Temperature class: It is recommended to use electrical equipment of temperature group T3. However, autoignition can never be excluded.
Other Information	No decomposition if stored and applied as directed.

8. Exposure controls/personal protection

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Exposure Controls, Personal Protection The following Australian and New Zealand Standards will provide general advice regarding safety clothing and equipment:
Respiratory equipment: AS/NZS 1715, Protective Gloves: AS/NZS 2161, Industrial Clothing: AS 2919, Industrial Eye Protection: AS/NZS 1336 and AS/NZS 1337, Occupational Protective Footwear: AS/NZS 2210.

Occupational exposure limit values	<u>Name</u>	<u>STEL</u>		<u>TWA</u>		<u>Footnote</u>
		<u>mg/m3</u>	<u>ppm</u>	<u>mg/m3</u>	<u>ppm</u>	
	Dimethylphthalate			5		
	Methyl ethyl ketone peroxide			1.5	0.2	Peak limitation
	Methyl ethyl ketone	890	300	445	150	

Appropriate engineering controls Explosion proof ventilation recommended. Effective exhaust ventilation system Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory Protection In the case of vapour or aerosol formation use a respirator with an approved filter.

Eye Protection Tightly fitting safety goggles. Wear face-shield and protective suit for abnormal processing problems.

Hand Protection Wear suitable protective gloves of neoprene or synthetic rubber.

Body Protection Wear suitable protective clothing.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

Other Information Environmental exposure controls: Prevent product from entering drains. If the product contaminates rivers and lakes or drains inform respective authorities.

9. Physical and chemical properties

Form	Liquid
Appearance	Red.
Odour	Faint.
Melting/Freezing Point	<= -10 °C
Boiling Point	Decomposes below the boiling point.
Solubility in Water	partly miscible at 20 °C
Solubility in Organic Solvents	Miscible with phthalates at 20°C
Specific Gravity	1.18 at 20°C
pH	Weakly acidic.
Vapour Pressure	No data available
Vapour Density (Air=1)	No data available
Odour Threshold	No data available
Partition Coefficient: n-octanol/water	No data available
Flash Point	Above the SADT value.
Flammability	Decomposition products may be flammable.
Auto-Ignition Temperature	Test method not applicable.
Explosion Limit - Upper	No data available

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Explosion Limit - Lower	No data available
Explosion Properties	Not explosive
Oxidising Properties	Not classified as oxidising.
Kinematic Viscosity	ca. 16.95 mm ² /s at 20°C
Dynamic Viscosity	ca. 20 mPa.s at 20°C
Relative Evaporation Rate	No data available
Relative density	1.18 at 20 °C
Other Information	Active oxygen content: 6.0 - 9.9% Peroxide content: 30 - 36% SADT: 60°C See also Section 10

SADT - (Self accelerating decomposition temperature) is the lowest temperature at which self-accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT.

10. Stability and reactivity

Reactivity	Stable under normal conditions.
Chemical Stability	Stable under recommended storage conditions.
Conditions to Avoid	Confinement must be avoided. Heat, flames and sparks.
Incompatible Materials	Contact with the following incompatible materials will result in hazardous decomposition: Acids and bases, Iron, Copper, Reducing agents, Heavy metals, Rust. Do not mix with peroxide accelerators, unless under controlled processing. Use only stainless steel 316, PP, polyethylene or glass-lined equipment. For queries regarding the suitability of other materials please contact the supplier.
Hazardous Decomposition Products	Carbon oxides, Formic acid, Acetic acid, Propionic acid, Methyl ethyl ketone.
Possibility of hazardous reactions	SADT - (Self accelerating decomposition temperature) is the lowest temperature at which self-accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT. Self-Accelerating decomposition temperature (SADT): 60 °C
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Toxicology Information	No experimental toxicological data of the product as such available. The following data are applicable to the ingredient(s) listed below:
Acute Toxicity - Oral	Harmful if swallowed. Acute oral toxicity: LD50 Oral: 1,017 mg/kg. Species: rats. The value is calculated.
Acute Toxicity - Dermal	LD50: 4,000 mg/kg. Species: Rabbit. The value is calculated.
Acute Toxicity - Inhalation	Harmful if inhaled. Acute inhalation toxicity: LC50 (Rat): 1.5 mg/l. Exposure time: 4 h. Test atmosphere: dust/mist. The value is calculated.

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Component: Dimethyl phthalate
 Acute oral toxicity: LD50: > 5,000 mg/kg. Species: Rat.
 Acute inhalation toxicity: Assessment: The substance or mixture has no acute inhalation toxicity
 Acute dermal toxicity: LD50: > 10,000 mg/kg. Species: Rabbit.

Component: Methyl ethyl ketone peroxide; Reaction mass of butane -2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane
 Acute oral toxicity: LD50: 1,017 mg/kg. Species: Rat.
 Acute inhalation toxicity: LC50 (Rat): 1.5 mg/l. Exposure time: 4 h. Test atmosphere: dust/mist.
 Acute dermal toxicity: LD50: 4,000 mg/kg. Species: Rat.

Component: Methyl ethyl ketone
 Acute oral toxicity: LD50: 2,737 mg/kg. Species: Rat.
 Acute dermal toxicity: LD50: 6,480 mg/kg. Species: Rabbit.
 Not classified based on available information.

Respiratory sensitisation
Skin Sensitisation

Not classified based on available information.

Germ cell mutagenicity
Carcinogenicity

Not classified based on available information.

Not classified based on available information.

Reproductive Toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Aspiration Hazard

Not classified based on available information.

Serious eye damage/irritation
Skin

Causes serious eye damage.

Causes severe burns.

corrosion/irritation
Other Information

Potential Health Effects
 Inhalation: Inhalation of aerosols may cause irritation to mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours. Harmful if inhaled.
 Skin: Symptoms may be delayed. May be harmful in contact with skin. Causes severe skin burns.
 Eyes: Causes serious eye damage.
 Ingestion: Harmful if swallowed. Causes burns.
 Symptoms of Overexposure: The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

12. Ecological information

Ecological Information
Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
 Toxic to aquatic life.

Persistence and degradability

Component: Dimethyl phthalate
 Result: Readily biodegradable.

Component: Methyl ethyl ketone peroxide; Reaction mass of butane -2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane
 Result: Readily biodegradable. Method: Closed Bottle test.

Component: Methyl ethyl ketone

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Mobility	Result: Readily biodegradable. Data not available.
Bioaccumulative Potential	Component: Dimethyl phthalate Species: Fish. Exposure time: 1 d. Bioconcentration factor (BCF): 5.4. Component: Methyl ethyl ketone peroxide; Reaction mass of butane -2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane Bioconcentration factor (BCF): 10.3. Not expected considering the low log Pow value. Data not available.
Other Adverse Effects	Data not available.
Acute Toxicity - Fish	LC50: 44.2 mg/l. Exposure time: 96 h. Species: Poecilia reticulata (guppy). Test Type: semi-static test. The value is calculated.
Acute Toxicity - Daphnia	EC50: 39 mg/l. Exposure time: 48 h. Species: Daphnia magna (Water flea). Test Type: Immobilization. The value is calculated.
Acute Toxicity - Algae	ErC50: 5.6 mg/l. Exposure time: 72 h. Species: Pseudokirchneriella subcapitata (algae). Test Type: Growth inhibition. The value is calculated.
Acute Toxicity - Bacteria	EC10: 12 mg/l. Exposure time: 0.5 h. Species: activated sludge. Test Type: Respiration inhibition. The value is calculated.

13. Disposal considerations

Disposal Considerations	Dispose of waste according to applicable local, state and federal regulations.
Product Disposal	The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Hazardous waste.
Container Disposal	Empty remaining contents. Dispose of as unused product. Do not burn, or use a cutting torch on, the empty drum. Due to the high risk of contamination recycling/recovery is not recommended. Follow all warnings even after the container is emptied.

14. Transport information

U.N. Number	3105
UN proper shipping name	ORGANIC PEROXIDE TYPE D, LIQUID - (methyl ethyl ketone peroxide)
Transport hazard class(es)	5.2
Hazchem Code	2WE
EPG Number	5K1
IERG Number	32
IMO Marine Pollutant	No
IMDG EMS	F-J, S-R
Other Information	Dangerous Goods of Class 5.2 Organic Peroxides are incompatible in a placard load with any of the following: - Class 1, Class 2, Class 3, Class 4, Class 5.1, Class 7, Class 8, Fire risk substances and combustible liquids.

15. Regulatory information

Regulatory Information	All components of this material are listed on or exempt from the New Zealand Inventory of Chemicals (NZIoC).
National and or International Regulatory Information	DSL: NO. This product contains one or several components that are not on the Canadian DSL nor NDSL. AICS: YES. On the inventory, or in compliance with the inventory NZIoC: YES. On the inventory, or in compliance with the inventory ENCS: YES. On the inventory, or in compliance with the inventory

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ISHL: YES. On the inventory, or in compliance with the inventory
KECI: YES. On the inventory, or in compliance with the inventory
PICCS: YES. On the inventory, or in compliance with the inventory
IECSC: YES. On the inventory, or in compliance with the inventory
TCSI: YES. On the inventory, or in compliance with the inventory
TSCA: YES. All chemical substances in this product are either listed on the
TSCA Inventory or in compliance with a TSCA Inventory exemption.
HSR002630

**HSNO Approval
Number**

16. Other Information

Other Information ADG Code: Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition
AICS: Australian Inventory of Chemical Substances
ASCC: Office of the Australian Safety and Compensation Council
BCF: Bioconcentration Factor
CAS number: Chemical Abstracts Service Registry Number
CMR: Carcinogenic, Mutagenic or toxic to Reproduction
DMEL: Derived Minimum Effect Level
DNEL: Desired NO Effect Level
EPA: Environmental Protection Agency
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
Hazchem Code: Emergency action code of numbers and letters that provide information to emergency services especially fire fighters
IARC: International Agency for Research on Cancer
IOELV: Indicative Occupational Exposure Limit Value
LC50: Lethal Concentration, 50 percent
LD50: Lethal Dose, 50 percent
NICNAS: National Industrial Notification & Assessment Scheme
NIOSH: National Institute for Occupational Safety & Health
NOAEL: No Observed Adverse Effect Level
NOEC: No Observed Effect Concentration
NOS: Not otherwise specified
NTP: National Toxicology Program (USA)
OEL: Occupational Exposure Limit
OSHA: Occupational Safety & Health Administration
PBT: Persistent Bioaccumulative Toxic chemical
PMCC: Pensky Martens Closed Cup
PNEC: Predicted No Effect Concentration
R-Phrase: Risk Phrase
STEL: Short Term Exposure Limit
STOT-SE: Specific Target Organ Toxicity (Single Exposure)
STOT-RE: Specific Target Organ Toxicity (Repeated Exposure)
SUSMP: Standard for the Uniform Scheduling of Medicines & Poisons
TWA: Time Weighted Average
UN Number: United Nations Number
vPvB: Very Persistent and Very Bioaccumulative
WEEL: Workplace Environmental Exposure Level
WEL-TWA: Workplace Exposure Limit, Time Weighted Average THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.
IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS
OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.
...End Of MSDS...



Safety Data Sheet

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