

Infosafe No™ IMD8Y	Issue Date : May 2013	ISSUED by IMCDAST
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Product Name **Butanox M-50**

Classified as hazardous

1. Identification

GHS Product Identifier Butanox M-50
Product Code 4828212
Company Name IMCD Australia Limited (ABN 44 000 005 578)
Address 1st Floor, 372 Wellington Road Mulgrave
 Victoria 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
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 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.

Other Names	<u>Name</u>	<u>Product Code</u>
	Butanox M-50	4911290
	Butanox M-50	4912525
	Butanox M-50	4912732
	Butanox M-50 (Methyl ethyl ketone peroxide)	5404165

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 criteria of NOHSC. Classified as Hazardous according to the criteria of the New Zealand HSNO Act.
 GHS Classification:

Hazardous to the Aquatic Environment - Acute Hazard: Category 3
 Acute Toxicity - Dermal: Category 5
 Eye Damage/Irritation: Category 1
 Acute Toxicity - Inhalation: Category 4
 Organic Peroxides: Type D
 Acute Toxicity - Oral: Category 4
 Skin Corrosion/Irritation: Category 1B
 HSNO Approval Number: HSR002630
 Haz Classes: 5.2D, 6.1E(dermal), 6.1D(inhal/oral), 8.2B, 8.3A, 9.1D
 Group Standard: Organic Peroxides, Corrosive

Signal Word (s) DANGER

Hazard Statement (s) H242 Heating may cause a fire.
 H302 Harmful if swallowed.
 H313 May be harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H332 Harmful if inhaled.
 H402 Harmful to aquatic life.

Pictogram (s) Corrosion, Exclamation mark, Flame

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Precautionary statement – Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P220 Keep away from dirt, rust, chemicals in particular.
 P234 Keep only in original container.
 P260 Do not breathe vapours.
 P261 Avoid breathing mist, vapours and spray.
 P264 Wash hands and 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.
 P280 Wear protective gloves eye/face protection and protective clothing.

Precautionary statement – Response

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.
 P363 Wash contaminated clothing before reuse.
 P370+P378 In case of fire: Use waterspray, foam, sand, dry chemical or CO2 for extinction.

Precautionary statement – Storage

P403+P235 Store in a well-ventilated place. Keep cool (below 25°C).
 P405 Store locked up.

Precautionary statement – Disposal

P501 Dispose of contents and container according to local regulations.

3. Composition/information on ingredients

Composition, information on ingredients Methyl ethyl ketone peroxide, solution in dimethyl phthalate.

Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Dimethylphthalate	131-11-3	55-70 %
	Methyl ethyl ketone peroxide	1338-23-4	30-37 %
	Methyl ethyl ketone	78-93-3	1-5 %
	Water	7732-18-5	1-3 %

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 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 Do not induce vomiting. Get medical attention immediately by calling a physician or a poison control centre. If victim is conscious and alert, give a cupful of water. Never give anything by mouth to an unconscious or convulsing person. If vomiting occurs, the patient should lie on their left side while vomiting to reduce the risk of aspiration.

Skin Immediately start continuous flushing of skin with water for at least 15 minutes, while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.

Eye contact Immediately start continuous flushing of eyes with water for at least 15 minutes. If easy to do, contact lenses should be removed during the flushing

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Indication of immediate medical attention and special treatment needed if necessary

by trained personnel. Hold the eyelids apart during the flushing to ensure rinsing the entire surface of the eye and lids with water. Get medical attention immediately.

Persons with pre-existing skin, eye or respiratory disease may be at increased risk from the irritant or allergic properties of this material. This material is severely corrosive to the eyes and may cause delayed keratitis. The normally prescribed 15 minute eye irrigation after exposure may be difficult because of the severe pain. The prior installation of a topical ocular anaesthetic is essential to facilitate a comprehensive ocular lavage. If swallowed, do not induce vomiting. Give patient plenty of water to drink. Ingestion of this corrosive material may result in severe ulceration, inflammation and possible perforation of the upper alimentary tract, with hemorrhage and fluid loss. Aspiration of this material during induced emesis can result in severe lung injury. Contact a Poison Control Centre for additional treatment information. Treat any additional effects symptomatically.

Most important symptoms/effects, acute and delayed

Harmful if swallowed. Causes burns. Causes injury to the cornea and eyelids. Risk of serious damage to eyes.

5. Fire-fighting measures

Fire Fighting Measures

Evacuate all non-essential personnel. Extinguish a small fire with powder or carbon dioxide then apply water to prevent re-ignition. Cool closed containers with water. Water used to extinguish a fire should not be allowed to enter the drainage system or water courses. After a fire, ventilate thoroughly the area and soak with water, clean the wall and metallic surfaces.

Suitable extinguishing media

Waterspray, alcohol-resistant foam, sand, dry chemical powder, CO2.

Unsuitable Extinguishing Media

Halons.

Hazards from Combustion Products

CO2, carbon monoxide, acetic acid, formic acid, propanoic acid, methyl ethyl ketone.

Specific hazards arising from the chemical

CAUTION: reignition may occur. Decomposition under effect of heating. If involved in a fire, it will support combustion. Vapours may form explosive mixtures with air. In case of fire and/or explosion do not breathe fumes.

Hazchem Code

2WE

6. Accidental release measures

Methods and materials for containment and cleaning up

Stop leakage if possible. Eliminate all sources of ignition and do not generate flames or sparks. Transfer remaining product from leaking container to a clean and suitable container. Cover the remainder with inert absorbent (e.g. vermiculite) for disposal. Keep contents moist. The waste should NOT be confined. Flush surroundings with large amounts of water and soap.

Personal Precautions

Do not breathe fumes/vapours. Avoid contact with the eyes. For personal protection, see section 8.

Environmental Precautions

Do not allow to enter drains or water courses.

Other Information

CAUTION: reignition may occur. Vapours are heavier than air and may spread along floors. Vapours may travel to a source of ignition and flash back. Evacuate personnel to safe area.

7. Handling and storage

Precautions for Safe Handling

Never weigh out in the storage room. When using, do not eat, drink or smoke. Do not pipette by mouth. Do not breathe fumes/vapour. Handle in well ventilated areas. Eliminate all sources of ignition and do not generate flames or sparks. Keep away from reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal soaps). Keep product and emptied containers away from heat and sources of ignition. Confinement must be avoided. Avoid contact with eyes. Avoid incompatible materials (See Section 10).

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Conditions for safe storage, including any incompatibilities	Store in accordance with local/national regulations. Keep away from food, drink and animal feed. Store in a dry well ventilated place away from sources of heat and direct sunlight. Store separately from other chemicals. Keep only in the original container. Keep container upright to prevent leakage.
Storage Temperatures	For maximum quality, store below 25°C.
Additional information on precautions for use	Fire and explosion prevention: Use explosion protected equipment. Keep away from sources of ignition - No smoking. Use non-sparking tools in areas where explosive vapour/air mixtures may occur. Do not cut or weld on or near this container even when empty.
Other Information	It is recommended to use electrical equipment of temperature group T3. However, autoignition can never be excluded. Wash hands thoroughly after handling or contact. Keep working clothing separately and do not take them home.

8. Exposure controls/personal protection

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 2161, Industrial Clothing: AS2919, Industrial Eye Protection: AS1336 and AS/NZS 1337, Occupational Protective Footwear: AS/NZS2210.

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	Ensure good ventilation and local exhaustion of the working area. Explosion proof ventilation recommended.					
Respiratory Protection	In case of insufficient ventilation, wear suitable respiratory equipment.					
Eye Protection	Wear eye/face protection.					
Hand Protection	Wear suitable protective gloves of neoprene or synthetic rubber.					
Body Protection	Wear suitable protective clothing.					
Other Information	Emergency shower and facilities for rinsing eyes must be accessible. Launder clothes before reuse.					

9. Physical and chemical properties

Form	Liquid
Appearance	Clear, colourless.
Odour	Faint.
Freezing Point	Not determined.
Boiling Point	Not applicable - decomposes.
Solubility in Water	Partly miscible.
Solubility in Organic Solvents	Miscible with phthalates.
Specific Gravity	1.18 at 20°C
pH	Slightly acidic.
Vapour Pressure	0.10 kPa at 84°C
Coefficient Water/Oil Distr.	Not determined.
Viscosity	24mPa.s at 20°C

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Volatile Component	5%
Flash Point	Above the SADT value.
Flammability	Decomposition products may be flammable.
Auto-Ignition Temperature	Test methd not applicable (see Section 7).
Flammable Limits - Lower	Not determined.
Flammable Limits - Upper	Not determined.
Explosion Properties	No
Oxidising Properties	Not applicable.
Other Information	Active oxygen content: 8.8 - 9.0% Peroxide content: 30 - 37% SADT: 60°C See also Section 10

10. Stability and reactivity

Chemical Stability	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 following temperature: 60°C. Contact with incompatible substances can cause decomposition at or below the SADT.
Conditions to Avoid	To maintain quality store in original closed container below: 25°C. Avoid shock and friction. Confinement must be avoided.
Incompatible Materials	Rust, iron and copper. Contact with acids, alkalies, heavy metals and reducing agents will result in hazardous decomposition. Do not mix with peroxide accelerators. Use only stainless steel 316, PP, polyethylene or glass-lined equipment.
Hazardous Decomposition Products	Acetic acid, formic acid, propanoic acid, methyl ethyl ketone.
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: Dimethyl phthalate: Oral LD50, rat: >2400 mg/kg Dermal LD50, rat: >10000 mg/kg Inhalation LC50, rat: 9300 mg/m3 (6.5 hours) Skin irritation: Mildly irritating. Eye irritation: Minimally irritating. Methyl ethyl ketone peroxide, 40% in Dimethyl phthalate: Oral LD50, rat: 1017 mg/kg Dermal LD50, rat: 4000 mg/kg Inhalation LC50, rat: 17 mg/l; 4 hours exposure time Skin irritation: Corrosive. Eye irritation: Corrosive. Sensitisation: Not sensitising. Genotoxicity: Ames test: not mutagenic Methyl ethyl ketone: Oral LD50, rat: 2737 mg/kg Dermal LD50, rabbit: 6480 mg/kg Inhalation LC50, mouse: 23500ppm Skin irritation: Moderately irritating Eye irritation: Moderately irritating
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12. Ecological information

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Ecological Information	No experimental ecological data are available on the preparation as such. The following data are applicable to the ingredient(s) listed below: Dimethyl phthalate: LC50 Fish (Lepomis macrochirus), 96h: 420 ppm IC50 Algae (Selenastrum capricornutum), 96h: 39.8 mg/l Fate: Degradation Biotic - readily biodegradable Bio Concentration Factor (BCF) fish 5.4 (24 hours) Methyl ethyl ketone peroxide, 40% in Dimethyl phthalate: LC50 Fish (Poecilia reticulata), 96h: 44.2 mg/l EC50 - Activated sludge respiration inhibition test = 48.0 mg/l Fate: Degradation Biotic - readily biodegradable (closed bottle test) Methyl ethyl ketone: LC50 Fish (Lepomis macrochirus), 96h: 3.22 g/l Fate: Degradation Biotic - readily biodegradable Naturally occurring substance.
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13. Disposal considerations

Disposal Considerations	Dispose of waste according to applicable local, state and federal regulations.
Product Disposal	Due to the high risk of contamination recycling/recovery is not recommended. Waste disposal in accordance with regulations (most probably controlled incineration).
Container Disposal	According to local regulations. Emptied container might retain product residues. 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 - Butanox M-50
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).
Poisons Schedule	S5
HSNO Approval Number	HSR002630
Symbol	C - Corrosive O - Oxidising
Hazard Category	Harmful, Corrosive, Oxidising
AICS (Australia)	All components of this material are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

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
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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...

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