

# MATERIAL SAFETY DATA SHEET

<b>AUSTRALIA:</b> Emergency Response: 1800 625 526 Swift and Company Limited ABN 44 000 005 578 1 <sup>st</sup> Floor, 372 Wellington Road Mulgrave, VIC 3170 Ph: (03)8544 3100 Fax (03)8544 3299	<b>NEW ZEALAND</b> Emergency Response: 0800 500 288 Swift New Zealand Limited 72 Hayr Road Mt Roskill, Auckland Ph: (09)625 6169 Fax (09)625 6655
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Hazardous according to criteria of NOHSC Australia.

## I IDENTIFICATION

**Product Name:** Butanox M-50

**Other Names:** Correct Shipping name is "ORGANIC PEROXIDE TYPE D, LIQUID".

**MSDS Code:** 4828211

**UN No:** 3105

**Hazchem Code:** 2WE

**Dangerous Goods Class:** 5.2 (Organic Peroxide)

**Sub Risk Class:** No Subsidiary Risk.

**Packaging Group:** II

Most EPGs may now be substituted by the "Initial Emergency Response Guide" available from Standards Australia.

**Poison Schedule:** S5

**Product Type:** Organic liquid.

**Chemical Family:** Organic peroxide in dimethyl phthalate carrier.

**Uses:** Oxidising agent used in chemical manufacture and polymer initialisation systems.

### Physical appearance & Properties:

**Appearance & Odour:** Clear, colourless liquid. Faint odour.

**Melting/softening point:** Liquid at normal temperatures. Becomes turbid below -10°C

**Boiling point and vapour pressure:** Decomposes.

**Volatile materials:** No data. Expected to be nil at 100°C

**Flashpoint:** 52°C (Setflash ISO 3697)

**Specific gravity:** 1.18

**Solubility in water:** Partly miscible.

**Corrosiveness:** Corrosive.

### Ingredients:

Chemical entity	CAS No	Proportion %	Worksafe Exposure Limits	
			TWA mg/m <sup>3</sup>	STEL <sub>3</sub> mg/m <sup>3</sup> peak
Methyl ethyl ketone peroxide	1338-23-4	33	1.5	not set
Dimethyl phthalate	131-11-3	65	5	890
Methyl ethyl ketone	78-93-3	1	445	

This is a commercial product, and the exact ratio of components may vary. Trace quantities of impurities are also likely.

## II HEALTH HAZARD DATA

### Health Effects:

No specific data is available for the product for chronic exposure symptoms. The ingredients are not listed as carcinogenic in Worksafe's document "Exposure Standards for Atmospheric Contaminants in the Occupational Environment" (May 1995).

### Acute Effects:

**Swallowed:** Data suggests that the product should be considered to be harmful by ingestion.

**Eye:** Data suggests that this product should be classified as corrosive to the eyes. Will cause problems such as corneal damage and or blindness if contact is not treated immediately.

**Skin:** Data suggests that the product should be classified as corrosive to the skin. May cause skin corrosion and burning if contacted areas are not treated promptly. Treatment should include neutralising the product.

**Inhalation:** Data suggests that the product should be considered to be non irritating and non toxic by inhalation.

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Primary route of exposure is inhalation and skin and eye contact.

### **First Aid:**

If poisoning occurs, contact a Doctor or Poisons Information Centre. If swallowed, do NOT induce vomiting. Rinse mouth with water, then give about 500ml water to drink. Seek medical advice.

Eye: If this product comes into contact with eyes, hold open and wash with running water for at least 15 minutes. Ensure irrigation under eyelids by occasionally lifting them. Do not try to remove contact lenses unless trained.

Skin: If this product comes into contact with skin, wash skin for at least 15 minutes with soap and water. Remove contaminated clothing and footwear. Ensure contaminated clothing is thoroughly washed before using again.

Inhalation: If mists, dusts or combustion products are inhaled, remove to fresh air. Lay victim down & keep warm and rested. If breathing is shallow, or has stopped, ensure clear airway and apply resuscitation or oxygen if available. Transport to hospital or doctor immediately.

Eye wash stations or baths and deluge showers should be available where product is being used.

Advice to doctor: Treat symptomatically. Note the nature of this product.

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## III PRECAUTIONS FOR USE

Risk Phrases are: R7, R22, R34. May cause fire. Harmful if swallowed. Causes burns.

### **Exposure Standards:**

A TWA value of 1.5 and a peak STEL value has been established for a significant ingredient of this product. Values expressed as mg/m<sup>3</sup>. Exposure values at the STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. Exposure values at the TWA (Time Weighted Average) means the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly. See Ingredients section on page 1 of this data sheet.

### **Engineering Controls:**

In industrial situations, concentration values below the TWA value should be maintained. Values may be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify the process or environment to reduce the problem.

### **Personal Protection:**

Respiratory Protection: A face mask or respirator may be used when the product is being used in dusty or confined areas. Otherwise it is usually safe to not use respiratory protection. However, there may be other circumstances where use of a mask or other device is preferred. Use judgement. For help in selecting suitable equipment consult AS/NZS 1715.

Protective Gloves: Rubber, PVC or other protective gloves must be used, even if product is being used infrequently or for brief periods. Failure to use gloves may result in severe burns to the skin. For help in selecting suitable gloves consult AS 2161.

Eye Protection: Safety glasses, goggles or full face shield must be used when using this product. Even brief contact with eyes may result in pain and damage. Consult AS 1336 and AS/NZS 1337 for information about eye protection.

Clothing: Clean overalls should be worn, preferably with an apron. Consult AS 2919 for advice on Industrial Clothing.

Safety Boots: Wearing safety boots is advisory. Consult AS/NZS 2210 for advice on Occupational Protective Footwear.

Flammability Limits: No data.

Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

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## IV SAFE HANDLING INFORMATION

Safety Phrases are: S14, S45, S50. Combination Safety Phrases are: S3/7/9, S36/37/39. Keep away from reducing agents (eg amines), acids, alkalis and heavy metal compounds (eg accelerators, driers and metal soaps). In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately (show the label where possible). Do not mix with peroxide-accelerators or reducing agents. Keep container tightly closed in a cool, well ventilated place. Wear suitable protective clothing, gloves and eye/face protection.

### **Storage & Transport:**

This material is classed as UN 3105, Class 5.2 : Organic Peroxides. Not to be transported with Classes 1 (Explosives), 2.1 (Flammable Gases), 2.2 (Non Flammable Gases), 2.3 (Poisonous Gases), 3 (Flammable Liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.2 (Organic

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Peroxides), 6 (Poisonous Toxic Substances) (nb when substance is capable of being ignited and burning), 7 (Radioactive Substances), 8 (Corrosives), and 9 (Miscellaneous Dangerous Substances) (nb when substance is capable of being ignited and burning).

This is an S5 poison.. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames, and make sure the material does not come into contact with products listed under "Materials to avoid" below.

### Spills and disposals:

In event of a major spill, prevent spillage from entering drains or water courses. Call Fire Brigade or emergency services. Wear full protective clothing including self contained breathing apparatus. Stop leak if safe to do so, and contain spill. Absorb onto vermiculite or other absorbent material. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage. Recycle containers wherever possible. After spills, wash area, preventing runoff from entering drains. If material enters drains, advise emergency services. This material may be suitable for approved landfill. Dilute before burning with organic solvents. Controlled Incineration according to local regulations is always preferred. If not possible burn in small portions on a remote place, using a torch with a long rod to ignite the material. The waste should NOT be confined. Dispose of only in compliance with local, state and federal regulations. Slippery on floors, especially when wet. Launder all contaminated clothing before re-use.

### Fire/Explosion Hazard:

**Flashpoint:** 52°C (Setflash ISO 3697)

**Extinguishing Media:** carbon dioxide, foam, water fog.

**Special Fire fighting procedures:** Wear full protective clothing including self contained breathing apparatus.

**Unusual fire & Explosion hazards:** Decomposition products are toxic. There is a moderate risk of an explosion from this product if involved in a fire. Heat may cause violent rupture of containers if involved in a fire. If involved in a fire, this product will support combustion.

**Stability:** A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by direct contact with incompatible substances or by thermal decomposition at and above 60°C.

**Polymerisation:** Will not polymerise.

**Decomposition Products:** carbon dioxide, carbon monoxide and smoke (if combustion is incomplete), acetic, formic and propionic acids, methyl ethyl ketone, water.

**Materials to avoid:** Keep away from reducing agents (eg amines), acids, alkalis and heavy metal compounds (eg accelerators, driers and metal soaps). Do not mix with peroxide-accelerators. Violent reactions may be expected with acid, alkali, heavy metals and reducing agents. Avoid contact with rust. Confinement must be avoided. Do not mix with peroxide accelerators. Do not mix with reducing agents. Use only Stainless steel 316, PVC, polyethylene or glass-lined equipment.

**Note:** This product is classed as a Dangerous Good. We suggest you consult your state's Dangerous Goods laws in order to clarify your obligations regarding the storage of this product.

## OTHER INFORMATION

This MSDS is prepared in accord with the Worksafe Australia document "National Code of Practice for the Preparation of Material Safety Data Sheets", 1994.

It also conforms with the New Zealand OSH Guidelines for the Preparation of MSDSs (May 1995).

### Contact Points:

	AUSTRALIA	NEW ZEALAND
<b>Police and Fire Brigade:</b>	Dial 000	111
<b>If ineffective:</b>	Dial 132203 (Exchange)	-
<b>For emergency response:</b>	Dial 1800 625 526	(0800)500 288
<b>National Poisons Information Centre:</b>	Dial 13 1126 (from anywhere in Australia)	

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 SHOULD READ THIS MSDS AND CONSIDER THE INFORMATION IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE INCLUDING IN CONJUNCTION WITH OTHER PRODUCTS. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY. THE 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.

Please read all labels carefully before using product.

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