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Infosafe No^{TM} IMIRW Issue Date :October 2018 ISSUED by IMCDAST

Product Name Butanox M-50 VRN

Classified as hazardous

1. Identification

GHS Product Butanox M-50 VRN

Identifier

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 Tel: (03) 8544 3100 (Business hours)

Number Fax: (03) 8544 3299

Emergency phone

1800 625 526

Curing agent.

number

NEW ZEALAND

Emergency Contact Address

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

the

Additional It is the user's responsibility to determine the suitability of this product

Information for their applications and their methods of use.

2. Hazard Identification

GHS classification of Classified as Hazardous according to the Hazardous Substances (Minimum Degrees

of Hazard) Regulations 2001, New Zealand.

substance/mixture 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.

 ${
m H314}$ Causes severe skin burns and eye damage.

H332 Harmful if inhaled. H401 Toxic to aquatic life. Flame, Exclamation mark, Corrosion

Pictogram (s)







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

protection.

Precautionary statement - Response 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

Ingredients

Chemical nature: Mixture

| Name | CAS | Proportion |
|---------------------|-----------|------------|
| Dimethylphthalate | 131-11-3 | 55-70 % |
| Methyl ethyl ketone | 1338-23-4 | 30-36 % |
| peroxide | | |
| 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. Immediate medical attention is required. Move out of dangerous area.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Oxygen may additionally be given, by trained personnel, if it is available.

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

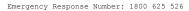
wide open while rinsing. Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

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 Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire Measures

residues and contaminated fire extinguishing water must be disposed of in

accordance with local regulations.

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Suitable

extinguishing media

Hazards from Fire will produce smoke containing hazardous combustion products (see section

In the event of fire, wear self-contained breathing apparatus.

10). Combustion

Products Special Protective

Equipment for fire

fighters Specific hazards

CAUTION: reignition may occur. Supports combustion. Water spray may be ineffective unless used by experienced firefighters. Do not allow run-off from arising from the fire-fighting to enter drains or water courses. Hazardous decomposition chemical

products formed under fire conditions.

Hazchem Code

6. Accidental release measures

Evacuate personnel to safe areas. Only qualified personnel equipped with **Emergency** suitable protective equipment may intervene. Prevent unauthorised persons **Procedures**

entering the zone.

Soak up with inert absorbent material and dispose of as hazardous waste. Keep Methods and wetted with water. Confinement must be avoided. Never return spills in materials for

original containers for re-use. containment and

cleaning up

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

Prevent product from entering drains. If the product contaminates rivers and lakes or drains inform respective authorities.

Precautions

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.

Maximum storage temperature: 25°C. Storage

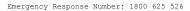
Temperatures Additional

Temperature class: It is recommended to use electrical equipment of temperature group T3. However, autoignition can never be excluded.

information on precautions for use Other Information

No decomposition if stored and applied as directed.

8. Exposure controls/personal protection







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Exposure Controls, The following Australian and New Zealand Standards will provide general advice

Personal Protection 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 Name STEL TWA

exposure limit values

mg/m3 ppm mg/m3 ppm Footnote 5 Dimethylphthalate Methyl ethyl ketone 1.5 0.2 Peak peroxide limitation 890 300 445 150 Methyl ethyl ketone

Methyl ethyl ketone 890 300 445 150

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

location.

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

Protection 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 <= -10 °C

Point

Solubility in Water partly miscible at 20 °C

Solubility in Organic Miscible with phthalates at 20°C

Solvents

Specific Gravity 1.18 at 20°C

pH Weakly acidic.

Vapour Pressure No data available

Vapour Density

No data available

(Air=1)

Odour Threshold No data available

Partition Coefficient: No data available

n-octanol/water

Flash Point Above the SADT value.

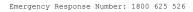
Flammability Decomposition products may be flammable.

Auto-Ignition Test method not applicable.

Temperature

Explosion Limit - No data available

Upper







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Explosion Limit -

No data available

Lower

Explosion Properties

Not explosive

Oxidising Properties

Not classified as oxidising.

Kinematic Viscosity

ca. $16.95 \text{ mm}^2/\text{s}$ at 20°C ca. 20 mPa.s at 20°C

Dynamic Viscosity

No data available

Relative Evaporation

Rate

Relative density

Other Information

1.18 at 20 °C

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. Carbon oxides, Formic acid, Acetic acid, Propionic acid, Methyl ethyl ketone.

Hazardous Decomposition

Products 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

Will not occur. Hazardous

Polymerization

11. Toxicological Information

No experimental toxicological data of the product as such available. Toxicology

following data are applicable to the ingredient(s) listed below: Information

Acute Toxicity - Oral Harmful if swallowed.

Acute oral toxicity: LD50 Oral: 1,017 mg/kg. Species: rats. The value is

calculated.

Acute Toxicity -

LD50: 4,000 mg/kg. Species: Rabbit. The value is calculated.

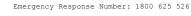
Dermal

Harmful if inhaled. Acute Toxicity -

Inhalation

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.

Respiratory Not classified based on available information.

sensitisation

Skin Sensitisation Not classified based on available information. 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

STOT-repeated Not classified based on available information.

exposure

Aspiration Hazard Not classified based on available information. Causes serious eye damage.

Serious eve

damage/irritation

Causes severe burns. Skin

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

An environmental hazard cannot be excluded in the event of unprofessional **Ecological**

handling or disposal. Information **Ecotoxicity** Toxic to aquatic life.

Persistence and degradability

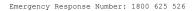
Component: Dimethyl phthalate Result: Readily biodegradable.

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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Result: Readily biodegradable.

Mobility Data not available.

Bioaccumulative Component: Dimethyl phthalate

Potential 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.

Other Adverse Data not available.

Effects

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 - EC50: 39 mg/l. Exposure time: 48 h. Species: Daphnia magna (Water flea). Test

Daphnia Type: Immobilization. The value is calculated.

Acute Toxicity - ErC50: 5.6 mg/l. Exposure time: 72 h. Species: Pseudokirchneriella subcapitata

Algae (algae). Test Type: Growth inhibition. The value is calculated.

Acute Toxicity - EC10: 12 mg/l. Exposure time: 0.5 h. Species: activated sludge. Test Type:

Bacteria Respiration inhibition. The value is calculated.

13. Disposal considerations

Disposal Dispose of waste according to applicable local, state and federal regulations.

Considerations

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.

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

ORGANIC PEROXIDE TYPE D, LIQUID - (methyl ethyl ketone peroxide)

name

Transport hazard 5.2

class(es)
Hazchem Code 2WE

EPG Number 5K1

IERG Number 32

IMO Marine Pollutant

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 All components of this material are listed on or exempt from the New Zealand

Information Inventory of Chemicals (NZIoC).

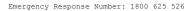
National and or DSL: NO. This product contains one or several components that are not on the

International Canadian DSL nor NDSL.

No

Regulatory
Information

AICS: 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.

HSNO Approval Number

HSR002630

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

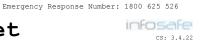
WEEL: Workplace Environmental Exposure Level

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...





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