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IMCNP Infosafe No™ Issue Date : May 2018 ISSUED by IMCDAST

Product Name TRIGONOX K-90

Classified as hazardous

### 1. Identification

TRIGONOX K-90 **GHS Product** 

Identifier

**Product Code** 4912056

**Company Name** IMCD Australia Limited (ABN 44 000 005 578)

Address 1st Floor, 372 Wellington Road Mulgrave

Victoria 3170 Australia

Tel: (03)8544 3100 (Business hours) Telephone/Fax

Fax: (03)8544 3299 Number

**Emergency phone** 

1800 625 526

number

**Emergency Contact** 

NEW ZEALAND

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

Other Names

Polymerisation initiator.

Name	Product Code
TRIGONOX K-90	4917319
TRIGONOX K-90	5404236
TRIGONOX K-90	4912463
TRIGONOX K-90	5404743
EDICONON N OO	F 4 0 4 7 7 0

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

for their applications and their methods of use.

THIS SDS 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 SDS 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.

### 2. Hazard Identification

### GHS classification of

substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees

of Hazard) Regulations 2001, New Zealand. Acute Toxicity - Dermal: Category 4 Acute Toxicity - Inhalation: Category 3 Acute Toxicity - Oral: Category 4

Carcinogenicity category 1B

Germ Cell Mutagenicity: Category 2

Hazardous to the Aquatic Environment - Acute Hazard: Category 2 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 2

Organic Peroxides: Type F





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Skin Corrosion/Irritation: Category 1B

STOT Repeated Exposure: Category 1

STOT Single Exposure: Category 3 (respiratory tract irritation)

Signal Word (s) DANGER

**Hazard Statement (s)** 

H242 Heating may cause a fire.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects .

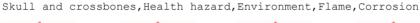
H350 May cause cancer by inhalation .

 ${
m H372}$  Causes damage to organs through prolonged or repeated exposure .

H401 Toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

#### Pictogram (s)













#### Precautionary statement -

Prevention

P201 Obtain special instructions before use.

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

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.

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

protection.

P281 Use personal protective equipment as required.

#### 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.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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. P308+P313 IF exposed or concerned: Get medical advice/attention.

P310 Immediately call a POISON CENTER or doctor/physician. P311 Call a POISON CENTER or doctor/physician.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P330 Rinse mouth.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

Precautionary

statement - Storage

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

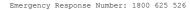
P405 Store locked up.

P410 Protect from sunlight.

P411+P235 Store at temperatures not exceeding 40 °C

Keep cool.

P420 Store away from other materials.







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Precautionary statement - Disposal Other Information

P501 Dispose of contents/container according to local/national regulations.

HSNO Approval Number: HSR100055

Haz Classes: 5.2F, 6.1C(inhalation), 6.1D(ingestion, contact), 6.6B,

6.9A(inhalation), 8.2B, 8.3A, 9.1B

Group Standard: ORGANIC PEROXIDES, TOXIC [6.1], CORROSIVE

### 3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Cumyl hydroperoxide	80-15-9	>=87-<=90 %
	Benzenemethanol, alpha, alphadimethyl-	617-94-7	>=5-<10 %
	Cumene	98-82-8	>=1-<5 %
	Acetophenone	98-86-2	>=1-<2 %
Preparation	Organic peroxide		
Description			

#### 4. First-aid measures

First Aid Measures Immediate medical attention is required.

Move out of dangerous area.

Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. If breathed in, move person into fresh air.

Inhalation

Call a physician or poison control centre immediately. Remove to fresh air.

Keep patient warm and at rest.

If unconscious, place in recovery position and seek medical advice.

Keep respiratory tract clear.

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. If skin irritation persists, call a physician.

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.

Corrosive effects

Harmful if swallowed or in contact with skin. Most important

Causes serious eye damage. symptoms/effects.

Toxic if inhaled. acute and delayed

May cause damage to organs through prolonged or repeated exposure if inhaled.

Causes severe burns.

### 5. Fire-fighting measures

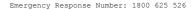
Use water spray to cool unopened containers. Fire Fighting

Collect contaminated fire extinguishing water separately. This must not be Measures

discharged into drains.

Fire residues and contaminated fire extinguishing water must be disposed of in

accordance with local regulations.







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

extinguishing media carbon dioxide.
Hazards from Carbon oxides

Combustion **Products** 

**Special Protective** 

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

**Equipment for fire** 

fighters

Specific hazards CAUTION: reignition may occur.

arising from the Supports combustion.

chemical 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 2W

**Decomposition Temp.** No data available

#### 6. Accidental release measures

Emergency Evacuate personnel to safe areas.

Procedures Only qualified personnel equipped with suitable protective equipment may

intervene.

Prevent unauthorised persons entering the zone.

Methods and Keep wetted with water.

materials for Soak up with inert absorbent material and dispose of as hazardous waste.

containment and Confinement must be avoided.

cleaning up

Never return spills in original containers for re-use.

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.

Precautions If the product contaminates rivers and lakes or drains inform respective

authorities.

 $\textbf{Other Information} \qquad \text{See Section 8 for information on appropriate personal protective equipment.}$ 

See Section 13 for additional waste treatment information.

### 7. Handling and storage

Handling Avoid formation of aerosol.

Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

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.

Conditions for safe

Prevent unauthorized access.

storage, including No smoking.

any incompatibilities Keep in a well-ventilated place.

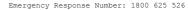
Electrical installations / working materials must comply with the

technological safety standards. Keep only in original container. Store away from other materials.

Storage Avoid temperatures below -30°C. If product freezes or separates, contact

Temperatures supplier.

Maximum storage temperature: 40°C







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Additional Fire and explosion prevention: Use explosion protected equipment.

information on Keep away from sources of ignition - No smoking.

nrecautions for use 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.

However, autoignition can never be exlcuded. No decomposition if stored and

applied as directed.

8. Exposure controls/personal protection

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 2161, Industrial

Clothing: AS2919, Industrial Eye Protection: AS1336 and AS/NZS 1337,

Occupational Protective Footwear: AS/NZS2210.

Occupational Name STEL

exposure limit values

mg/m3 ppm mg/m3 ppm Footnote

Cumene 375 75 125 25

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

Protection filter.
Filter A

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 Protective suit

Hygiene Measures Avoid contact with skin, eyes and clothing.

When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and immediately after handling the product.

Other Information 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 Clear, colourless.

Odour Pungent.

Decomposition

No data available

Temperature

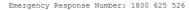
**Melting Point** −30 °C

Boiling Point Decomposes.

Solubility in Water Miscible at 20°C

Specific Gravity No data available.

pH Weakly acidic.
Vapour Pressure 4.0 hPa at 20°C
Evaporation Rate No data available.







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n-octanol/water

**Density** expected to be: approx.1,060 kg/m3

Flash Point Above the SADT value, 100 °C

The SADT is 70°C

Flammability Decomposition products may be flammable.

Auto-Ignition No data.

**Temperature** 

Explosion Limit - No data available

Upper

Explosion Limit - No data available

Lower

Explosion PropertiesNot explosiveOxidising PropertiesNot applicableKinematic ViscosityNo data available.Dynamic Viscosity10.9 mPa.s at 20°C

Other Information Active oxygen content: 9.1 - 9.5%

Self-Accelerating decomposition temperature (SADT): 70 °C

10. Stability and reactivity

Reactivity Stable under normal conditions.

Chemical Stability Stable under recommended storage conditions.

Conditions to Avoid A high degree of confinement must be avoided.

Heat, flames and sparks.

Incompatible Contact with the following incompatible materials will result in hazardous

Materials 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 Acetophenone, 2-phenylisopropanol, methane.

**Decomposition Products** 

Possibility of No dangerous reaction known under conditions of normal use.

hazardous reactions

Hazardous Polymerisation does not occur.

Polymerization

Acute Toxicity -

11. Toxicological Information

Toxicology Harmful if swallowed or in contact with skin.

Information Toxic if inhaled.

Acute Toxicity - Oral Acute toxicity estimate: 412.51 mg/kg

Cumyl hydroperoxide: LD50, rat: 382mg/kg 2-phenylisopropanol: LD50, rat: 1300 mg/kg

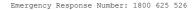
Cumene: LD50, rat: >2000 mg/kg

Acetophenone: LD50: 301 - 2000 mg/kg Acute toxicity estimate: 1,228 mg/kg

Dermal Cumyl hydroperoxide: LD50: 1200 - 1520 mg/kg

Acute Toxicity - Acute toxicity estimate: 0.56 mg/l, 4h, Test atmosphere: dust/mist

Inhalation Cumyl hydroperoxide: LC50, 4h: 1370 mg/l







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Harmful if swallowed Ingestion

Causes burns.

Inhalation Inhalation of aerosols may cause irritation to mucous membranes.

Thermal decomposition can lead to release of irritating gases and vapours.

Toxic if inhaled.

May cause respiratory irritation.

Skin Symptoms may be delayed.

Harmful in contact with skin. Causes severe skin burns. Causes serious eye damage.

Respiratory

Eye

Respiratory sensitisation: Not classified based on available information.

sensitisation

**Skin Sensitisation** Not classified based on available information.

> Cumyl hydroperoxide: Not sensitising. Suspected of causing genetic defects

Cumyl hydroperoxide: Genotoxicity in vitro: Result: Evidence of genotoxic mutagenicity

effects in vitro.

May cause cancer by inhalation . Carcinogenicity

Reproductive

Not classified based on available information.

Toxicity

Germ cell

May cause respiratory irritation. STOT-single

Cumyl hydroperoxide: May cause respiratory irritation. exposure

Cumene: Exposure routes: Inhalation, May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure. STOT-repeated

Cumyl hydroperoxide: Exposure routes: Inhalation The substance or mixture is exposure classified as specific target organ toxicant, repeated exposure, category 1.

**Aspiration Hazard** Not classified based on available information.

Causes serious eye damage. Serious eye

2-phenylisopropanol: Irritating to eyes. damage/irritation

Causes severe burns. Skin

Cumyl hydroperoxide: Causes burns. Classification: Category 1B corrosion/irritation

2-phenylisopropanol: Irritating to skin.

#### 12. Ecological information

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

handling or disposal. Information

Toxic to aquatic life with long lasting effects. **Ecotoxicity** No data is available on the product itself.

No data available on the product itself. Persistence and

Cumyl hydroperoxide: Not readily biodegradable. degradability

Cumene: Not readily biodegradable.

Mobility No data available

No data is available on the product itself. Bioaccumulative

Cumyl hydroperoxide: Bioconcentration Factor (BCF) = <1 **Potential Acute Toxicity - Fish** Cumyl hydroperoxide: LC50, Onchorhynchus mykiss, 96h: 3.9mg/l

2-Phenylisopropanol: No data available

Cumyl hydroperoxide: EC50: 18.84 mg/l, 48 h **Acute Toxicity -**

Cumene: EC50: > 1 - 10 mg/l, 48h Daphnia

Cumyl hydroperoxide: EC50: 3.1 mg/l, 72h **Acute Toxicity -**

### 13. Disposal considerations

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

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







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container

Hazardous waste Dispose of contents/container in accordance with local

regulation.

**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 norecommended.

Follow all warnings even after the container is emptied.

#### 14. Transport information

NZS 5433:2007 Transport of Dangerous Goods on Land & Dangerous Goods Rule **Transport** 

2005. Information 3109 IIN Number

**UN proper shipping** 

ORGANIC PEROXIDE TYPE F, LIQUID - (Cumyl hydroperoxide)

name

5.2 Transport hazard

class(es)

Sub.Risk Hazchem Code 2.W **EPG Number** 5M1 IERG Number 32 **Marine Pollutant** Yes

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,

5.1, Class 7, Class 8, Fire risk substances and combustible liquids.

Dangerous Goods of Class 8 Corrosives are incompatible in a placard load with any of the following: - Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids and

Class 7.

### 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 HSNO** Approval

HSR100055

Not Scheduled

Number

AICS (Australia)

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

Inventory of Chemical Substances (AICS).

### 16. Other Information

**Contact Person/Point** An electronic version of this SDS is available at www.imcdgroup.com

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







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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

...End Of MSDS...

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