

## SAFETY DATA SHEET

### 1. IDENTIFICATION

**PRODUCT(S): MEKP CATALYST**

**Supplier In Australia:** Concept Paints  
**Address:** 26 - 30 Charles Street, St Marys, Australia. 2760  
**Telephone Number:** +61 2 96732555  
**Emergency Telephone:** +61 404 828 888 (24 hours)

**Supplier In NZ:** GPI Automotive (NZ) Ltd  
**Address:** 59 Greenmount Drive, East Tamaki, Auckland, New Zealand  
**Telephone Number:** +64 9 274 4943  
**Emergency Telephone:** +61 404 828 888 (24 hours)

**Recommended Use:** Curing Agent for Polyester Resins

Date of Issue: 07/05/21  
 Replaces Issue Dated:

### 2. HAZARDS IDENTIFICATION

**Classification:**

- **HAZARDOUS SUBSTANCE.**
- **DANGEROUS GOODS.** (According to the criteria of ADG Code and NZ 5433.)

CLASSIFICATION	GHS CATEGORY	NZ CATEGORY	SIGNAL WORD	HAZARD STATEMENT
Flammable Liquids	4	3.1D	Warning	Combustible liquid.
Self-Reactive Substances and Mixtures	Type E	5.2E	Warning	Heating may cause a fire.
Acute Toxicity – Oral	4	6.1D (Oral)	Warning	Harmful if swallowed.
Acute Toxicity – Dermal	4	6.1D (Dermal)	Warning	Harmful in contact with skin.
Acute Toxicity – Inhalation	4	6.1D (Inhalation)	Warning	Harmful if inhaled.
Skin Corrosion/ Irritation	1C	8.2C	Danger	Causes severe skin burns and eye damage.

Germ Cell Mutagenicity	2	6.6B	Warning	Suspected of causing genetic defects.
Specific Target Organ Toxicity (Single Exposure)	3	6.9 (Respiratory tract irritant)	Warning	May cause respiratory irritation.

**Hazard Symbols:**



**Precautionary Statements:**

- Obtain special instructions for use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat/sparks/open flames/ hot surfaces. No smoking.
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilation/lighting/equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection/face protection.
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- IF ON SKIN (or hair): Remove /take off immediately all contaminated clothing. Wash skin with plenty of soap and water.
- IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
- IF exposed or concerned: Get medical advice/attention.
- Call a POISON CENTER or doctor/physician if you feel unwell.
- Specific treatment (see first aid instructions in this SDS).
- Rinse mouth.
- Do NOT induce vomiting.
- If skin irritation occurs: Get medical advice/attention.
- If eye irritation persists: Get medical advice/attention.
- Take off contaminated clothing and wash before reuse.
- In case of fire: Use Foam, Carbon Dioxide or Dry Chemical Powder for extinction.
- Store in a well-ventilated place. Keep cool.
- Store locked up.
- Dispose of contents/container in accordance with the relevant government legislation. Normally suitable for incineration by an approved agent.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Entity / Hazardous Component	CAS Numbers	Proportion by wt.
Methyl Ethyl Ketone Peroxide	1338-23-4	30 – 60%
2,2,4-trimethyl-1,3-pentanediol diisobutyrate	6846-50-0	30 – 60%
Methyl Ethyl Ketone	78-93-3	0 – 10%
Hydrogen Peroxide	7722-84-1	0 – 10%
Hexylene Glycol	107-41-5	0 – 10%

### 4. FIRST AID MEASURES

#### Route of Exposure      First Aid Measures

**Ingestion:** Give a glass of water. Do NOT induce vomiting. Place patients head downwards if vomiting occurs. Prevent it entering lungs, as aspiration of material into the lungs can cause chemical pneumonitis which can be fatal. Immediately call a POISON CENTER or doctor/physician.

**Eye:** Immediately irrigate with large quantities of water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin:** Wash exposed area thoroughly with soap and water. Remove contaminated clothing. If skin irritation occurs: Get medical advice/attention.

**Inhaled:** Give fresh air, careful not to become a casualty yourself. Remove and loosen clothing. If breathing is normal make patient comfortable and keep warm till recovered. If breathing is difficult ensure the airways are clear and have a qualified person give oxygen from a face mask. If breathing has stopped commence (EAR) and if cardiac arrest has occurred, commence (CPR) and get medical advice/attention urgently.

**Advice To Doctor:** Treat Symptomatically.

## 5. FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** Foam, Carbon Dioxide or Dry Chemical Powder for a small fire. For a large fire use large quantities of fine water spray.

**Hazards from Combustion Products:** If involved in a fire, toxic materials such as carbon monoxide, carbon dioxide, nitrogen oxide, isocyanate vapour, traces of hydrogen cyanide, hydrogen chloride gas, hydrogen fluoride gas, various chlorine and/or fluorine compounds as well as hydrocarbons may form. Liberates oxygen, which will support combustion. Liberates heat.

**Precautions for Firefighters:** Heating can cause rupture of containers with explosive force. If safe do so, remove all sources of ignition and any containers from the path of the fire. Heat affected containers remain hazardous. Keep cool with water spray.

Burns fiercely when ignited. May partially detonate. May explode from friction, shock, heat or containment. Organic peroxides provide oxygen for combustion so simple smothering actions are not effective against established fires. Due to the possibility of re-ignition, extinguished residues must be thoroughly cooled before approaching.

Firefighters should wear self contained breathing apparatus with a full face and operated in the positive pressure mode.

**Hazchem Code:** 2WE

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** In case of an accidental release or spill, evacuate the danger area. Wear the correct Personal Protective Equipment (See section 8 of SDS). Do not breathe vapours. Extinguish all ignition sources and shut off the source of the spill. Ventilate the area. May be violently or explosively reactive.

**Environmental Precautions:** Avoid release to the environment by bunding or covering drains.

**Containment:** Contain and absorb the spill with absorbent material such as sand, soil or vermiculite. Transfer the material into drums, using non-sparking tools. Seal and label the drums. Contact the appropriate waste management authority for disposal.

## 7. HANDLING AND STORAGE

**Precautions For Safe Handling:** Wear the correct Personal Protective Equipment (See Section 8 of the SDS) when using this product. Ground the container and receiving equipment whilst using. Only use non-sparking tools and take precautionary measures against static discharge.

**DO NOT USE** brass or copper containers / stirrers. **DO NOT** allow clothing wet with material to stay in contact with skin. **DO NOT** return the mixed material to original containers.

Only use in a well-ventilated area or preferably apply the product in a spray paint booth with an adequate exhaust system and explosion-proof electrical, ventilation, and lighting equipment.

Never eat, drink or smoke whilst handling this product. Always wash hands thoroughly after using this product and before smoking, eating, drinking or using the toilet.

**Conditions For Safe Storage:** Keep containers away from heat/sparks/open flames/ hot surfaces. Store in the original containers in a well-ventilated area and away sources of ignition, oxidising agents, other materials and/or foodstuffs. Store containers in a cool place, at temperatures not exceeding 35°C and out of direct sunlight. Keep containers tightly closed when not in use and check regularly for leaks. Store locked up. Store in accordance with local statutory requirements and applicable standards for Organic Peroxides, eg. AS 2714. **WARNING:** Gradual decomposition during storage in sealed containers may lead to a large pressure build-up and subsequent explosion.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Limits:

	TLV –TWA (mg/m <sup>3</sup> )
Methyl Ethyl Ketone Peroxide	Not Available
2,2,4-trimethyl-1,3-pentanediol diisobutyrate	Not Available
Methyl Ethyl Ketone	445
Hydrogen Peroxide	1.4
Hexylene Glycol	Not Available

**Engineering Controls:** Ensure sufficient ventilation to maintain concentration below exposure standard. Only use in a well ventilated area or preferably apply the product in a spray paint booth with an adequate exhaust system. Keep containers sealed when not in use. Earth any mixing vessels when using this product.

**Personal Protection:** Skin contact should be avoided by wearing impervious work clothing, boots and Neoprene or PVC gloves. Eyes should be protected by chemical goggles or safety glasses fitted with side shields (Refer to AS/NZS 1337). If an inhalation risk exists, an organic vapour respirator or a self-contained breathing apparatus, with a full face and operated in the positive pressure mode, should be used. Ensure cartridges are correct for the potential air contamination (Refer to AS/NZS 1715 and 1716).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear thin liquid.
Odour:	Mildly pungent odour.
Odour Threshold:	Not Available
pH:	Not Applicable.
Melting Point/Freezing Point:	Not Available
Boiling Point Range:	Not Available
Flash Point:	71°C
Evaporation Rate:	Not Available
Flammability:	Combustible.
Flammability Limits:	Not Available
Vapour Pressure:	Not Available
Vapour Density:	Not Available
Relative Density:	1.16
Solubility In Water:	Immiscible
Partition Coefficient: n-octanol/water:	Not Available
Auto-ignition Temperature:	Not Available
Decomposition Temperature:	~60°C
Viscosity:	Not Available

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Store containers in a cool place, at temperatures not exceeding 35°C and out of direct sunlight. Peroxides decompose over time and give off oxygen. Peroxides require controlled storage for stability. They are thermally unstable and are prone to undergoing exothermic self-accelerating decomposition. Organic peroxides may decompose explosively, burn rapidly, be impact and/or friction sensitive and react dangerously with many other substances.

**Conditions to Avoid:** Avoid all ignition sources, incompatible materials and exposure to direct sunlight. Never mix directly with accelerators or promoters. For example, if mixed with cobalt salts, organic peroxides / organic peroxide mixtures will cause rapid / spontaneous decomposition with fire / explosion hazard. Do not return unused product to original container. Avoid any contamination.

**Incompatible Materials:** Acids, alkalis, reducing agents, oxidising agents, rust, transition metals and their compounds (such as iron, copper, brass, bronze, cobalt, nickel, lead), resins, promoters, accelerators and combustible materials.

**Hazardous Decomposition Products:** If involved in a fire, toxic materials such as carbon monoxide, carbon dioxide, nitrogen oxide, isocyanate vapour, traces of hydrogen cyanide, hydrogen chloride gas, hydrogen fluoride gas and various chlorine and fluorine compounds and hydrocarbons may form. Liberates oxygen, which will support combustion. Liberates heat.

**Hazardous Reactions:** See Incompatible Materials.

## 11. TOXICOLOGICAL INFORMATION

There is no data available on this product itself. The following information (where available) relates to the individual ingredients of the product.

### Acute Toxicity – Oral:

Ingredient	Value (LD50)	Species	GHS Category
Methyl Ethyl Ketone Peroxide	200mg/kg	Mouse	4
2,2,4-trimethyl-1,3-pentanediol diisobutyrate	>2000 mg/kg	Rat	4
Methyl Ethyl Ketone	2054 mg/kg	Rat	4
Hydrogen Peroxide	>225 mg/kg	Rat	4
Hexylene Glycol	2585 mg/kg	Guinea	4

**Health Effects:** Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.

**Acute:** Ingestion of organic peroxides may produce nausea, vomiting, abnormal pain, stupor, bluish discoloration of skin and mucous membranes. Inflammation of the heart muscle may also occur.

**Chronic:** Individuals surviving ingestion of up to 60 grams of 60% methyl ethyl ketone peroxide (MEKP) solution experienced severe inflammation of the oesophagus and stomach. Chemical burns of the gastrointestinal tract and scarring and narrowing of the oesophagus were reported in the case of a patient who survived swallowing 60 grams of a 2% solution.

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### Acute Toxicity – Dermal:

Ingredient	Value (LD50)	Species	GHS Category
Methyl Ethyl Ketone Peroxide	4000 mg/kg	Rabbit	4
2,2,4-trimethyl-1,3-pentanediol diisobutyrate	>2000 mg/kg	Rabbit	4
Methyl Ethyl Ketone	~6400 mg/kg	Rabbit	4
Hydrogen Peroxide	>2000 mg/kg	Rabbit	4
Hexylene Glycol	>5000 mg/kg	Rabbit	4

**Health Effects:** The material can produce chemical burns following direct contact with the skin.

**Acute:** Skin contact with the material may be harmful; systemic effects may result following absorption.

**Chronic:** Methyl ethyl ketone peroxide (MEKP) exhibits tumour promoting properties when applied topically to the skin of hairless mutant mice that had previously been initiated with ultraviolet light.

**Acute Toxicity – Inhalation:**

<b>Ingredient</b>	<b>Value (LC50)</b>	<b>Species</b>	<b>GHS Category</b>
Methyl Ethyl Ketone Peroxide	1.5 mg/L	Rat	4
Methyl Ethyl Ketone	32 mg/L	Mouse	4
Hydrogen Peroxide	2 mg/L	Rat	4

**Health Effects:** Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.

**Acute:** Animal testing showed that exposure to methyl ethyl ketone peroxide (MEKP) vapour caused lung congestion with purple spots. Inhalation hazard is increased at higher temperatures.

**Chronic:** Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue.

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<b>Skin Corrosion/Irritation:</b>	<b>GHS Category</b>
Methyl Ethyl Ketone Peroxide	1C
Hydrogen Peroxide	1C
2,2,4-trimethyl-1,3-pentanediol diisobutyrate	2A
Methyl Ethyl Ketone	2A
Hexylene Glycol	2A

**Health Effects:** The material can produce chemical burns following direct contact with the skin.

**Acute:** Skin contact with the material may be harmful; systemic effects may result following absorption.

**Chronic:** Methyl ethyl ketone peroxide (MEKP) exhibits tumour promoting properties when applied topically to the skin of hairless mutant mice that had previously been initiated with ultraviolet light.

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<b>Eye Damage/Irritation:</b>	<b>GHS Category</b>
Methyl Ethyl Ketone Peroxide	1C
Hydrogen Peroxide	1C

**Health Effects:** Causes serious eye irritation. The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.

**Acute:** Causes redness, tearing or blurred vision.

**Chronic:** Will cause discomfort and may cause redness, itching or blurred vision.

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<b>Respiratory or Skin Sensitation:</b>	<b>GHS Category</b>
Not Available	

**Health Effects:**

**Germ Cell Mutagenicity:**  
Methyl Ethyl Ketone Peroxide

**GHS Category**  
2

**Health Effects:** Suspected of causing genetic defects.

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**Carcinogenicity:**  
Not Available

**GHS Category**

**Health Effects:**

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**Toxic To Reproduction:**  
Not Available

**GHS Category**

**Health Effects:**

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**Specific Target Organ Toxicity (Single Exposure):**  
Methyl Ethyl Ketone Peroxide

**GHS Category**  
3

**Health Effects:** May cause respiratory irritation.

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**Specific Target Organ Toxicity (Repeated Exposure):**  
Not Available

**GHS Category**

**Health Effects:**

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**Aspiration Hazard**  
Not Available

**GHS Category**

**Health Effects:**

## 12. ECOLOGICAL INFORMATION

**Environmental Precautions:** Avoid release to the environment, the product should not be allowed to enter drains, water courses or the soil.

There is no data available on this product itself. The following information (where available) relates to the individual ingredients of the product.

### Hazardous To The Aquatic Environment – Acute Hazard:

Ingredient	Value (LC50)	Species	GHS Category
Not Available			

**Effects:**

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### Hazardous To The Aquatic Environment – Long Term Hazard:

Ingredient	Value (LC50)	Species	GHS Category
Not Available			

**Effects:**

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### Exotoxic To Terrestrial Vertebrates:

Ingredient	Value (LD50)	Species	NZ Category
Not Available			

**Effects:**

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**Persistence and Degradability:** No information available.

**Bioaccumulative Potential:** No information available.

**Mobility in Soil:** No information available.

### 13. DISPOSAL CONSIDERATIONS

Contact the relevant waste management authority. Normally suitable for incineration by an approved agent.

### 14. TRANSPORT INFORMATION

**ADG (Land):**

Shipping Name: ORGANIC PEROXIDE  
TYPE D, LIQUID  
UN Number: 3105  
Hazard Class: 5.2  
Subsidiary Risk: Not Applicable  
Packaging Group: None  
Hazchem: 2WE

**NZS 5433:**

Shipping Name: ORGANIC PEROXIDE  
TYPE D, LIQUID  
UN Number: 3105  
Hazard Class: 5.2  
Subsidiary Risk: Not Applicable  
Packaging Group: None  
Hazchem: 2WE

**IMGD (Sea):**

Shipping Name: ORGANIC PEROXIDE  
TYPE D, LIQUID  
UN Number: 3105  
Hazard Class: 5.2  
Subsidiary Risk: Not Applicable  
Packaging Group: None  
Marine Pollutant: No  
EmS: F-J,S-R

**ICAO/IATA (Air):**

Shipping Name: ORGANIC PEROXIDE  
TYPE D, LIQUID  
UN Number: 3105  
Hazard Class: 5.2  
Subsidiary Risk: Not Applicable  
Packaging Group: None

### 15. REGULATORY INFORMATION

Poisons Schedule: Schedule 5 - According to the Australian Standard for the Uniform Scheduling of Medicines and Poisons. (SUSMP)  
HSNO Group Standard: HSR002629 – Organic Peroxides

### 16. OTHER INFORMATION

Date of Issue: 07/05/21  
Replaces Issue Dated:

The above information has been presented in good faith and is accurate to the best of our knowledge, at the time of preparation. All of the information supplied herein is related only to the health and safety issues of the product. Users should assume all responsibility for its use, as the conditions under which this product is used are beyond our control. For technical information on the use of this product users should consult the appropriate Technical Data Sheet.

**END OF SDS**