



P.O Box 40604  
Upper Hutt 5140  
New Zealand  
Phone 64 4 5285071  
www.rubbersolutions.co.nz.

Rubbersolutions Asia-Pacific Ltd

## SAFETY DATA SHEET

### Z33 Vulcanising Solution

#### 1. IDENTIFICATION

Product Name: Z33 Vulcanising Solution

Other Names: Aliphatic hydrocarbon

Chemical 'Family: Aliphatic, cycloparaffinic hydrocarbon

Molecular formula: N/A

Recommended Use: Retreading of TBR, LT, & PC casings & vulcanisation of conveyor belts

Supplier: Rubber Solutions Asia-Pacific Ltd

ABN: PO Box 40-604 Upper Hutt

Street Address: South Pacific Industrial Park, Railway Ave, Upper Hutt

Telephone: 64-4-5285071

Fax: 64-4-5285074

Emergency phone: 027-2274026

All other inquiries: 027-2274026

#### 2. HAZARDS IDENTIFICATION

Product is classified as hazardous according to Schedules 1 to 6 of the *Hazardous Substances (minimum Degrees of Hazard) Regulations 2001* of the HSNO Act, 1996.

**HSNO Classifications:** 3.1B, 6.1E, 6.3A, 6.9, 9.1B

**Signal word:** DANGER



#### Risk Phrases:

HH03 Harmful if swallowed

HH32 Harmful if inhaled

HH19 Causes eye irritation

HH20 May cause an allergic skin reaction

HP44 Extremely flammable liquid & vapour

#### Safety Phrases:

PP10 Keep away from ignition sources such as heat/sparks/open flame/hot surfaces. No smoking

PP31 Keep cool & protect from sunlight

PP44 Use explosion-proof electrical/ventilating/lighting equipment

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PP60 Do not breathe dust/fumes/gas/mist/vapours/spray  
P243 Take precautionary measures against static discharge  
P261 Do not breathe dust/fumes/gas/mist/vapours/spray  
P264 Wash hands thoroughly after using  
P271 Use only outdoors or in well-ventilated area  
P273 Avoid release to the environment  
P280 Use protective gloves, protective clothing and eye protection  
PP61 Call a POISON CENTRE or Doctor if exposed or if you feel unwell

Dangerous Goods Classification: 3

Poisons Schedule

### 3. COMPOSITION: Information on Ingredients

Chemical Ingredient	CAS No.	Proportion (%v/v)
Heptanes	142-82-5	50.0-60.0
Cyclohexane	110-82-7	20.0-30.0
n-hexane	110-54-3	<2
Methyl Cyclohexane	108-87-2	<20
Octane	111-65-9	<5
Rubber Compound		8.0

### 4. FIRST AID MEASURES

For advice, contact Poisons Information Centre (Phone: 0800 Poison 764 766) or a doctor.

#### Ingestion:

If swallowed do NOT induce vomiting...give water. Use mouth to nose rather than mouth to mouth with artificial respiration. Obtain medical attention

#### Eye Contact:

Hold eyelids apart & flush the eye continuously with running water. Continue for at least 15 minutes or till advised by National Poisons Centre (0800 746 766)

#### Skin Contact:

If skin or hair contact occurs, remove contaminated clothing & flush as above with water

#### Inhalation:



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Move to fresh air immediately. Keep person warm and at rest in a position comfortable for breathing. If respiratory irritation, dizziness, nausea or unconsciousness occurs, seek immediate medical assistance. Begin artificial respiration if breathing stopped

#### **First Aid facilities:**

Provide eye baths & safety showers close to areas where splashing may occur.

#### **Medical Attention:**

Treat according to symptoms. Gastric lavage may be indicated if ingested. If ingested, material may be aspirated into the lungs and cause chemical pneumonitis, treat appropriately. General measures should be taken to control acidosis & maintain urine output.

This product contains light hydrocarbon material, or a component, may be associated with cardiac sensitisation following very high exposure (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart stimulating substances like epinephrine. Administration of such substances should be avoided.

## **5. FIRE FIGHTING MEASURES**

Evacuate area. Shut off product that may fuel a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing firefighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

#### **Suitable extinguishing media:**

Dry chemical, Carbon Dioxide or foam

#### **Hazards from combustion products:**

Carbon Dioxide & carbon monoxide

#### **Precautions for fire fighters and special protective equipment:**

Full protective clothing, and in enclosed spaces wear self-contained breathing apparatus (SCBA). Vapour is flammable and heavier than air. Vapour may travel across the ground and reach remote sources of ignition causing a flashback fire danger

#### **Hazchem Code:**

3YE

## **6. ACCIDENTAL RELEASE MEASURES**

### **Emergency Procedures**



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Prevent fluid from escaping to drains & waterways. Contain leaking packaging in a containment drum.  
Prevent vapours from building up in confined spaces. Ensure drain valves are closed



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#### **Methods and materials for containment**

##### **Major Land Spill**

- Eliminate sources of ignition
- Warn occupants of downwind areas of possible fire & explosion hazard
- Prevent liquid from entering sewers, watercourses, or low-lying areas
- Keep public away from the area
- Shut off the source of the spill if possible to do so
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation
- Take measures to minimise the effect on ground water
- Contain spilled liquid with sand or earth
- Consult an expert on disposal of recovered material & ensure conformity to disposal rules

##### **Major Water Spill**

- Eliminate any source of ignition
- Warn occupants & shipping in downwind areas of possible fire & explosion hazard
- Notify the port or relevant authority & keep public away
- Shut off the source of spill if possible & safe to do so
- Confine spill if possible
- Remove the product from the surface by skimming or with absorbent material
- Consult an expert on disposal & ensure conformity to local regulations of disposal

## **7. HANDLING AND STORAGE**

#### **Precautions for safe handling**

This product is flammable. Do NOT open near open flame, sources of heat or ignition

No smoking

Keep container closed & handle with care.

#### **Conditions for safe storage**

Store in a cool, dry place away from direct sunlight. Do not cut, heat or weld containers

#### **Incompatible materials**

Butyl Rubber, EPDM, Polystyrene

## **8. EXPOSURE CONTROLS: PERSONAL PROTECTION**

#### **National Exposure Standards**

Time weighted average (TWA) is 600mg/m<sup>3</sup> (159 ppm)

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Short term exposure limit (STEL) is not specified, which is the max allowable exposure concentration at any time

#### **Biological limit values**

For guidance; n-hexane in urine, 0.4 mg/L (as 2,5-hexanedione without hydrolysis)

#### **Engineering Controls: Ventilation**

The use of local exhaust ventilation is recommended to control process emissions near the source. Lab samples should be handled in a fume hood. Use explosion proof ventilation equipment.

#### **Personal Protective Equipment**

##### **Respiratory Protection:**

Where concentrations in air may exceed the limits described in the National Exposure Standards it is recommended to use a half-face mask to avoid inhalation. Type 'A' filter material to be used

##### **Eye Protection:**

Always use safety glasses or face shield when handling this product

##### **Skin/Body Protection:**

Long sleeves & long trousers recommended with enclosed footwear or safety boots  
Chemical resistant gloves to be used

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Unit of measurement	Typical value
Appearance		Black viscous liquid
Boiling Point	°C	75-115
Flash Point	°C	-15
Density @ 15 °C	g/ml	0.72
Vapour Pressure @ 20 °C	kPa	8.65
Explosive Limits (LEL-UEL)	%	1-7
Vapour Density @ 20 °C	kPa	N/A
Autoignition Temperature	°C	>200
Viscosity @ 20 °C	cSt	N/A
Percent Volatiles	%	100
Solubility with Water	%w/w	<0.10

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The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult the Product Data Sheet.

#### **10. STABILITY AND REACTIVITY**

##### **Chemical Stability**

Stable @ room temperature

##### **Conditions to avoid**

Sources of heat & ignition, open flame

##### **Hazardous decomposition products**

No decomposition products except on burning

##### **Hazardous reactions**

Oxidising agents, mineral acids. phosphorous & chlorine

#### **11. TOXICOLOGICAL INFORMATION**

##### **Acute Effects**

###### ***Ingestion***

Produces hallucinations & narcotic effects...drowsiness with volume ingestion. .fatigue, loss of appetite, paresthesia in distal extremities, muscle weakness, cold pulsation in extremities, blurred vision, headache & nausea. Vomiting may cause this product to be aspirated to the lungs resulting in chemical pneumonitis or pulmonary oedema

###### ***Eye Contact***

This product is irritating to the eyes but will not permanently damage eye tissue

###### ***Skin Contact***

Irritating...may result in cracking & dryness

###### ***Inhalation***

Irritating to respiratory tract. Large concentrations may cause muscle weakness, tingling extremities, , blurred vision, headaches, nausea, loss of appetite, hallucinations, act as an anaesthetic and may have other central nervous system effects

##### **Chronic Effects**

Possible damage to peripheral nervous system, possibly arms & legs



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#### **Other Health Effects Information**

Contains n-hexane with experimental teratogenic & reproductive effects Use in conjunction with MEK will greatly enhance effects

#### **Toxicological Information**

n-hexane: 28710mg/kg (oral, rat)

### ***12. ECOLOGICAL INFORMATION***

#### **Eco toxicity**

##### **Aquatic Toxicity**

Fish Toxicity (rainbow trout, goldfish, bluegill). ..LC50(96hr). .toxic to aquatic organisms Bluegreen algae...possible with continuous exposure

##### **Persistence/degradability**

Readily biodegradable. Oxidises rapidly by photo-chemical reactions in air

##### **Mobility**

Highly volatile & rapidly evaporates to the air if released into water

### ***13. DISPOSAL CONSIDERATIONS***

#### **Disposal Methods**

Empty-packaging-to recycling, recovery or disposal through qualified contractor...ensure empty packaging allowed to dry first

#### **Special Precautions for Landfill or Incineration**

NOT suitable for landfill. Ashless & can be burned in appropriate equipment





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### 14. TRANSPORT INFORMATION

Road and Rail Transport		Marine Transport		Air Transport	
<b>UN No.</b>	3295	<b>UN No</b>	3295	<b>UN No</b>	3295
<b>Proper Shipping Name</b>	100% Liquid Hydrocarbon	<b>Proper Shipping Name</b>	100% Liquid Hydrocarbon	<b>Proper Shipping Name</b>	100% Liquid Hydrocarbon
<b>DG Class</b>	3	<b>DG Class</b>	3	<b>DG Class</b>	3
<b>Sub Risk</b>	None	<b>Sub Risk</b>	None	<b>Sub Risk</b>	None
<b>Pack Group</b>	II	<b>Pack Group</b>	II	<b>Pack Group</b>	II
<b>Hazchem</b>	3YE	<b>Hazchem</b>	3YE		

#### Dangerous Goods Segregation

Product classified as DG Class 3, packing group II. Please consult the Land Transport Rule: DG2005 & NZS 5455: 1999 Transport of Dangerous Goods on Land for information

### 15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

**Country/Region:** New Zealand

**Environmental Risk Management Authority (ERMA) Group Standard Number:** Solvents (Flammable) Group Standard 2017, HSR002650

The following items have been taken from the SDS for the pure solvent and can be considered a useful guide for handling Z33.

- Certified Handler:** Not Required
- Restriction to Workplace:** Not applicable.
- Signage:** Threshold Quantity: 250 Litres
- Fire Extinguishers:** Threshold Quantity: 250 Litres
- Emergency Response Plan:** Threshold Quantity: 1000 Litres
- Secondary containment:** Threshold Quantity: 1000 Litres



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**Other:** Location and transit depot test certification: 100 litres (closed containers greater than 5 Litres); 250 Litres (closed containers up to and including 5 Litres); 50 Litres (open containers).

**Hazardous atmosphere zone:** 100 litres (closed containers); 25 litres (decanting); 5 Litres (open occasionally); 1 Litre (open containers in continuous use).

**Inventory:** NZCIC

**Status:** Listed

Poisons Schedule: None established

### **16. OTHER INFORMATION**

Reasons for issue: Update Regulatory Information.

Abbreviations:

NZCIC. NZ Chemical Industry Council

CAS Number: Chemical Abstracts Number



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### References:

- Supplier Material Safety Data Sheets
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The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact Rubber Solutions Asia-Pacific Ltd.

Link to: [Rubber Solutions web page](#)