



SAFETY DATA SHEET

CV4000 HARDENER

1. PRODUCT & COMPANY IDENTIFICATION

PRODUCT: CV4000 HARDENER

Recommended Use: A cold vulcanizing cement.

Manufacturer:

Chemical Vulcanising Systems Pty Ltd
1107 Anvil Street
Robertville
South Africa

Telephone: +27 11 472 1016

Email: info@chemvulc.co.za

New Zealand Distributor:	Australia Distributor:	South Africa Distributor:
Chemvulc New Zealand Ltd 155c Manukau Road Pukekohe Auckland New Zealand	Chemvulc Industrial Australia (CIA) Unit 3 11 Precision Place Mulgrave New South Wales	Chemvulc Marketing Pty Ltd 1007 Katrol Street Robertville Roodepoort South Africa

Other Global Distributors:

Please contact Manufacturer

Australia Customer Service: + 61 2 4587 9888

New Zealand Customer Service Toll Free Number: 0508 CHEMVULC

South Africa Customer Service: +27 11 472 1016

Emergency Telephone:

NZ: 0800 CHEMCALL (0800 243 622)

AUSTRALIA: 1-800127406

SOUTH AFRICA: +27 21 689 5227 (Poison Centre) 0800 172 743 (Spill Response)

GLOBAL: +64 3 3530199

(24 HRS)(EMERGENCIES ONLY)

USA: +1 703 527 3884

TRANSPORT EMERGENCY ONLY DIAL: 111

This SDS may not provide exhaustive guidance for all the HSNO controls assigned to this substance. The EPA website www.epa.govt.nz or www.epa.gov or www.osha.gov or www.epa.nsw.gov.au should be consulted for a full list of triggered controls and cited regulations.

2. HAZARDOUS IDENTIFICATION

UN GHS LABELLING:

GHS Label elements, including precautionary statements:

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H333 May be harmful if inhaled.

H336 May cause drowsiness or dizziness.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HSNO New Zealand Approval Code: HSR002528

HSNO Hazard Classification: 3.1B, 6.1E, 6.4A, 6.9B

Flammable liquid – very high hazard
Acutely toxic
Irritating to the skin
Irritating to the eye
Harmful in the aquatic environment

Avoid release to the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS #	Content
Ethyl Acetate	141-78-6	70 - 80%
Isocyanate activator	9016-87-9	20 - 30%
Stabilizers		<1%

4. FIRST AID:

Consult the National Poisons Information Centre, see section 1 - Emergency contacts or a doctor in every case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause injury. If breathing difficulties occur seek medical attention immediately.

Skin: Prevent skin contact

Eyes: Prevent eye contact

Wash skin: When contaminated

Remove: When wet (flammable)

Eye: Irrigate immediately

Skin: Water flush promptly

Breathing: Respiratory support

Swallow: Medical attention immediately

NOTE TO PHYSICIAN: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES:

Flash Point: < -4°C/<25°F

Extinguishing Media: Water Fog, foam, alcohol foam, CO₂, dry chemical.

Flammability of the Product: Flammable.

Products of Combustion:

These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances:

Highly flammable in presence of open flames and sparks, of heat. Slightly flammable to flammable in presence of oxidizing materials, of acids, of alkalis. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of static discharge: Not available. Slightly explosive in presence of heat. Non-explosive in presence of shocks.

Fire Fighting Media and Instructions:

Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog.

Special Remarks on Fire Hazards:

Vapor may travel considerable distance to source of ignition and flash back. When heated to decomposition it emits acrid smoke and irritating fumes.

6. ACCIDENTAL RELEASE MEASURES:

Action to take for spills/leaks:

- Do not touch or walk through spilled material.
- Ensure the correct personal protective equipment is used before attending to spill.
- Isolate the area, do not allow entry.
- Dam area and prevent entry into waterways and drains.

Small spills/leaks:

- Absorb with material such as sand, soil or sawdust. Collect spilled product and place in a sealable container for disposal.

- Spill residues may be cleaned using water and detergent. Contain and absorb wash water for disposal.
- Absorb and collect washings and place in the same sealable container for disposal.

Large spills/leaks:

- Dam the area off and report to specialized spill response, see section 1. Emergency contacts.

7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

HANDLING: Keep out of reach of children. Harmful if swallowed. Causes skin irritation. Avoid contact with skin and clothing. After work, remove protective clothing and equipment, washing hand thoroughly before eating, drinking, chewing gum, using tobacco, or using the toilet. Clean up spilled material immediately, and wash clothes, equipment and work area after use.

STORAGE: Store in a tightly closed original container in a cool, dry well ventilated area out of direct sunlight when not in use. This product can be stored in an unheated building. Do not store with food, feedstuffs, fertilizers and seeds. See product label for further handling/storage precautions relative to the end use of this product.

This substance is subject to a requirement for an emergency management plan, secondary containment and signage, whenever it is held in quantities of 1000 litres or more, either alone on an aggregate or with other hazardous substances. See Hazardous substances (Emergency Management) Regulations 25-42.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

A workplace exposure standard (WES) has not been established by the NZ Ministry for Business, Innovation and Employment for this product. The following exposure controls are stated as per OSHA United States Department of Labor.

OSHA US Department of Labor	Ingredient	TWA	STEL
	Ethyl Acetate	200ppm (720mg/m3)	200ppm (720mg/m3)
	Isocyanate MDI	0.02ppm	0.004ppm

Personal Protective Equipment

Eyes: Protect eyes with safety glasses or face shield. Avoid wearing contact lenses.

Skin: Avoid skin contact. Wear protective clothing, safety boots and chemical resistant protective gloves. Inspect PPE is in good condition before use. Remove PPE and wash exposed areas thoroughly with soap and water prior to eating, drinking or smoking.

Respiratory: Always work in a well-ventilated area, use an extractor fan if required. Wear a respiratory mask as per site requirements. Ensure that the respiratory mask is equipped for the potential air contamination and is in good working order.

9. PHYSICAL & CHEMICAL PROPERTIES:

APPEARANCE: A clear yellowish liquid

ODOR: Slight, sweetish smell

pH: N/A

RELATIVE DENSITY: N/A

BOILING POINT: 60°C (140°F)

VAPOR PRESSURE: N/A

SPECIFIC GRAVITY: 0.8

SOLUBILITY: Soluble in cold water, hot water, diethyl ether, acetone, alcohol, benzene. Note: The Isocyanate compound reacts with water and will crystallise.

10. STABILITY & REACTIVITY:

STABILITY:

Conditions to avoid: Sources of heat.

INCOMPATIBILITY: N/A

POLYMERIZATION: N/A

11. TOXICOLOGICAL INFORMATION:

POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

EYES: Irritating to eyes. Symptoms include itching, burning, redness and tearing.

SKIN: Irritating to skin. Repeated or prolonged contact may cause erythema (reddening of the skin) or dermatitis, resulting from a defatting action on tissue.

INGESTION: Harmful: may cause lung damage if swallowed. Ingestion of this product may cause central nervous system effect including headache, sleepiness, dizziness, slurred speech and blurred vision.

INHALATION: Vapors may cause drowsiness and dizziness. Inhalation of high vapor concentrations may cause CNS-depression and narcosis. Severe over exposure may produce more serious symptoms, including coma and risk of kidney damage.

DELAYED EFFECTS: Repeated or prolonged exposure may cause conjunctivitis and damage to the respiratory tract and kidney.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects:

Skin: May cause skin irritation.

Eyes: Causes eye irritation. May cause irritation of the conjunctiva.

Inhalation: May cause respiratory tract and mucous membrane irritation. May affect respiration and may cause acute pulmonary edema. May affect gastrointestinal tract (nausea, vomiting). May affect behavior/central nervous system (mild central nervous system depression - exhilaration, talkativeness, boastfulness, belligerency, vertigo, diplopia, drowsiness, slurred speech, slowed reaction time, dizziness, lightheadedness, somnolence, ataxia, unconsciousness, irritability, fatigue, sleep disturbances, reduced memory and concentration, stupor, coma), cardiovascular system (peripheral vascular collapse (shock) - rapid pulse, hypotension, cold pale skin, hypothermia).

Other symptoms may include: flushing of face and sweating.

Ingestion: May cause gastrointestinal tract irritation with nausea and vomiting. May affect blood, behavior/central nervous system (CNS depression - effects may be similar to that of inhalation).

Chronic Potential Health Effects:

Skin: Repeated or prolonged skin contact may cause drying and cracking of the skin. Ingestion: Prolonged or repeated ingestion may affect the liver.

Inhalation: Prolonged inhalation may affect behavior/central nervous system (symptoms similar to those of acute inhalation), and cause liver, kidney, lung, and heart damage. It may also affect metabolism, and blood (anemia, leukocytosis)

12. ECOLOGICAL INFORMATION:

ENVIRONMENTAL FATE:

When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to quickly evaporate. When released into water, this material is expected to readily biodegrade. When released to water, this material is expected to quickly evaporate. This material has an estimated bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded. When released into the air, this material is expected to have a half-life between 1 and 10 days. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.

ECOTOXICITY:

Toxic to aquatic life. Do not release into drains and/or waterways.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHOD:

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this product must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristics or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.

14. REGULATORY INFORMATION:**DOMESTIC (LAND, D.O.T.)****Proper Shipping Name:** ETHYL ACETATE**Hazard Class:** 3**UN Number:** UN1173**Packing Group:** II**Hazchem Code:** 3[Y]E**AIR TRANSPORT IATA****Proper Shipping Name:** ETHYL ACETATE**Hazard Class:** 3**UN Number:** UN1173**Packing Group:** II**Hazchem Code:** 3[Y]E**Special Provisions:** A3**15. REGULATORY INFORMATION:**

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO).
Approval Code: HSR002528. Solvents (Flammable, toxic) Group Standard 2014.

Key workplace requirements:	
MSDS	To be available within 10 minutes in workplaces storing any quantity.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency Plan	Required if >1000L is stored.
Approved Handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if >1000L is stored.
Signage	Required if >1000L is stored in any one location.
Location Test Certificate	Not required.
Flammable Zone	Not required.
Fire Extinguisher	Not required.

16. OTHER INFORMATION:

The use of this product may come under Resource Management Acts and regulations, the Health Safety and Employment Acts and regulations, local council rules and regional council plans.

Abbreviations	
Approval Code	Solvents (Flammable, toxic) Group Standard 2014, EPA www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling limit: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at the time
Controls Matrix	List of default controls linking regulation numbers to Marix code (e.g. T1,I16).
EC₅₀	Ecotoxic Concentration 50% - concentration in water, which is fatal to 50% of a test population (e.g. daphnia, fish species).
ERMA	Environmental Risk Management Authority (now EPA)
EPA	Environmental Protection Authority
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD₅₀	Lethal Dose 50% - dose which is fatal to 50% of a test population (usually rats)
LC₅₀	Lethal Concentration 50% - concentration in air which is fatal to 50% of a test population (usually rats).
MBIE	Ministry of Business, Innovation and Employment (New Zealand)
MSDS/SDS	Material Safety Data Sheet or Safety Data Sheet
STEL	Short Term Exposure Limit – The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA was not exceeded.
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours).
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard – The airborne concentration of a biological or chemical agent to which a worker may be exposed.

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properness of the product.

NEXT REVIEW DATE: 10/08/2023