

## Safety Data Sheet: Carbodox

### 1. IDENTIFICATION

|                                 |   |
|---------------------------------|---|
| <b>Product Name:</b>            | Carbodox                                  |
| <b>Other Names:</b>             | None                                      |
| <b>Recommended Use:</b>         | Insecticide                               |
| <b>Distributor:</b>             | Key Industries Ltd                        |
| <b>Address:</b>                 | PO Box 65 070 Mairangi Bay, Auckland 0754 |
| <b>Telephone:</b>               | 09 917 1791                               |
| <b>Emergency Phone:</b>         | 027 4941659                               |
| <b>National Poisons Centre:</b> | 0800 764 766                              |

### 2. HAZARDS IDENTIFICATION

**Hazard Classification:** 6.1E, 6.5B, 6.9B, 9.1D, 9.3C, 9.4A

**Hazards:** May be harmful if swallowed.  
May cause an allergic skin reaction.  
May cause damage to organs through prolonged or repeated exposure.  
Toxic to aquatic life.  
Harmful to terrestrial vertebrates.  
Very toxic to terrestrial invertebrates.

### 3. COMPOSITION: Information on Ingredients

| Ingredient                                      | CAS Number  | Concentration (%w/w) |
|---|-------------|----------------------|
| s-Indoxacarb                                    | 173584-44-6 | 4.9                  |
| 1,2-benzisothiazol-3(2H)-one                    | 2634-33-5   | 0.03                 |
| Propylene Glycol                                | 57-55-6     | <10.0                |
| Balance – Proprietary ingredients of low hazard | Proprietary | To 100%              |

### 4. FIRST AID MEASURES

**Consult the National Poisons Information Centre 0800 POISON (0800 764 766) 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 of injury. If breathing difficulties occur seek medical attention immediately.**

#### **Swallowed**

If swallowed, do not induce vomiting. Begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth. Obtain urgent medical attention.

#### **Skin Contact**

Remove contaminated clothing and shoes and wash skin with plenty of soap and water. DO NOT scrub the skin. Wash clothing before reuse. Destroy contaminated shoes and other contaminated leather articles such as belts and watchbands. Seek medical attention if symptoms persist.

#### **Eye Contact**

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses if present and easy to do and continue rinsing. Do NOT allow victim to rub eyes or keep eyes closed. Obtain medical attention if symptoms persist.

#### **Inhalation**

Move the victim to fresh air immediately. Begin artificial respiration if breathing has stopped. Obtain medical attention immediately.

#### **First Aid facilities**

Provide eye baths and safety showers close to areas where exposure may occur.

#### **Medical Attention**

Treat symptomatically and supportively, monitoring the development of hypersensitivity reactions with respiratory distress. No known antidote. In all cases consult the National Poisons Centre for the most up to date treatment information.

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### 5. FIRE FIGHTING MEASURES

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

#### Suitable extinguishing media

Water fog, fine spray, foam, dry chemical powder or carbon dioxide. Do not use water stream directly as this may spread fire or give a violent steam eruption. Cool fire exposed container with water spray.

#### Hazards from combustion products

Burning chemicals may produce by-products more toxic than the original material. Decomposition from combustion may emit acrid smoke and toxic fumes containing carbon oxides, nitrogen oxides, hydrogen fluoride.

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

Full protective clothing with chemical goggles, butyl or neoprene gloves and self-contained breathing apparatus

#### Hazchem Code

None

#### Flash Point

>100 °C

### 6. ACCIDENTAL RELEASE MEASURES

#### Emergency Procedures

Prevent product from escaping to drains and waterways. Contain leaking packaging in a containment vessel or bunded area. Prevent any vapours or dust from building up in confined areas. Ensure that drain valves are closed at all times. Clean up minor spills immediately.

#### Methods and materials for containment for a major spill

Eliminate sources of ignition. Warn occupants of downwind areas of possible hazards. Keep the public away from the area. Prevent product from entering sewers, watercourses, or low-lying areas. Shut off the source of the spill if safe to do so. Advise relevant authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation. Take measures to minimise the effect on the groundwater. If possible recover product using a pump paying attention to flammability hazards or absorbent material. Collect and seal in properly labelled containers for disposal. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations. In all instances due consideration must be given for First Aid Measures (Section 4), PPE requirements (Section 8), Stability and Reactivity (Section 10) for this material.

### 7. HANDLING AND STORAGE

#### Precautions for safe handling

Keep out of reach of children. Keep containers closed. Avoid sources of ignition including smoking. Use only in well-ventilated areas. When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before reuse.

#### Conditions for safe storage

Store in a cool, dry place away from direct sunlight. Keep away from heat and ignition sources. Store in original containers. Protect from physical damage to prevent accidental release. Do not store with food, feedstuffs, fertilizers and seeds.

#### Incompatible materials

None known.

#### Fire Extinguisher Requirements

No specific requirements.

### 8. EXPOSURE CONTROLS: Personal Protection

#### Exposure Limits

No WES TEL or EEL has been set by EPA for this product.

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### **Engineering Controls:**

The use of local exhaust ventilation is recommended to control process emissions near the source. Sufficient ventilation should be provided to keep the solvent in air concentrations below any relevant exposure limit. Provide mechanical ventilation of confined spaces.

### **Hygiene Controls:**

Facilities storing or utilising this material should be equipped with an eyewash facility, safety shower and facility for washing hands/face after work.

### **Personal Protective Equipment**

**Respiratory Protection:** When spraying Carbodox below 1m height use a P2 disposable facemask as minimum respiratory protection.

**Eye protection:** Always use safety glasses or a chemical goggles when handling this product. Contact lenses may absorb and concentrate irritants, glasses are recommended.

**Skin/ Body Protection:** Always wear long sleeves and long trousers or coveralls, and enclosed footwear of safety boots when handling this product. It is recommended that chemical resistant gloves (eg nitrile, neoprene) be worn when handling this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |                     |
|--|---------------------|
| <b>Appearance:</b>                     | White opaque liquid |
| <b>Boiling Point (°C):</b>             | Approximately 100   |
| <b>Melting Point(°C):</b>              | Not applicable      |
| <b>Flash Point(°C):</b>                | >100                |
| <b>Lower Explosive Limit, LEL (%):</b> | No data available   |
| <b>Upper Explosive Limit, UEL (%):</b> | No data available   |
| <b>SG/ Density, 20°C (g/mL):</b>       | 1.00 – 1.05         |
| <b>Vapour Pressure, 20°C (kPa):</b>    | No data available   |
| <b>Alkalinity/ acidity as pH:</b>      | 5.0 – 6.0           |
| <b>Solubility in water:</b>            | Forms a suspension  |

The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult Key Industries.

## 10. STABILITY AND REACTIVITY

### **Chemical stability**

Stable at room temperature and pressure.

### **Hazardous decomposition products**

Decomposition from combustion may emit acrid smoke and toxic fumes containing carbon oxides, nitrogen oxides, and hydrogen fluuroides.

### **Specific Materials to Avoid**

Strong acids, alkalis, oxidising agents, reducing agents and heat.

### **Hazardous Polymerisation**

Not known to occur.

## 11. TOXICOLOGICAL INFORMATION

### **Acute Effects**

**Ingestion:** Low toxicity if swallowed. Exposure may result in such nonspecific symptoms as headache, dizziness, weakness, and nausea. Impaired mobility and tremors have been observed in laboratory studies.

Ingestion of small amounts is unlikely to cause permanent injury. Contact a doctor immediately if ingested.

**Eye Contact:** The liquid may cause transient eye irritation. Avoid eye contact

**Skin Contact:** Contact with the skin may result in temporary mechanical irritation. Avoid skin contact.

**Inhalation:** The vapour/mist may be discomforting to the upper respiratory tract and lungs. Acute effects from inhalation of high vapour concentrations may cause effects similar to that of ingestion.

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### **Chronic Effects**

Prolonged or repeated exposure may result in central nervous system effects such as tremors, uncoordination and disorientation. Repeated inhalation or skin contact may cause sensitisation. Persons with pre-existing conditions are advised to limit or avoid product contact.

### **Other Health Effects Information**

Not Available.

### **Toxicological Information**

Oral LD<sub>50</sub>: 268 mg/kg (rat), indoxacarb active ingredient; 3537 mg/kg (product, estimated)

Dermal LD<sub>50</sub>: >5000 mg/kg (rat)

Inhalation LC<sub>50</sub>: >5.5 mg/L (rat)

## 12. ECOLOGICAL INFORMATION

### **Ecotoxicity**

This product is harmful to the environment, with the potential to result in irreparable and irreversible effects. See hazard classifications in section 15 of this document. No specific ecological data available on this product.

**Persistence/ Biodegradability:** log P: 4.65. This substance (indoxacarb) is regarded as moderately bioaccumulative and not persistent.

**Mobility:** This product is not readily soluble with water limiting its mobility in the environment. This product is likely to have low mobility in the environment and low leaching potential

### **Aquatic Toxicity:**

Fish toxicity LC<sub>50</sub>: 0.65 mg/L; indoxacarb active ingredient

Daphnia Magna EC<sub>50</sub>: 0.60 mg/L; indoxacarb active ingredient

Algae EC<sub>50</sub>: 0.11 mg/L; indoxacarb active ingredient

Honey Bees: 0.094 µg/organism; indoxacarb active ingredient

## 13. DISPOSAL CONSIDERATIONS

### **Product Disposal**

Dispose of product only by using according to label or using an approved waste disposal contractor. If this material as supplied becomes a waste care should be taken to ensure compliance with national and local authorities. It is the responsibility of the waste generator to determine the toxicity and physical properties of the waste generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Do not dispose of via municipal sewers, drains, natural streams or rivers

### **Packaging Disposal**

Triple rinse container and add rinsate to the spray tank. Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain product residue that may be harmful. Incinerate via approved incinerators or crush and bury in an approved landfill. Ensure that empty packaging is managed in accordance with and HSNO regulations.

## 14. TRANSPORT INFORMATION

**UN No:** Not a DG for transport

## 15. REGULATORY INFORMATION

**Country/ Region:** New Zealand

**ACVM Approval Number:** Not applicable

**EPA Approval Number:** HSR100876

**HSNO Classifications:** 6.1E Acute Toxicity (Oral); 6.5B Sensitiser (Contact); 6.9B Target Organ Toxicant; 9.1D Aquatic Ecotoxicant; 9.3C Ecotoxicant: Terrestrial Vertebrate; 9.4A Ecotoxicant Terrestrial Invertebrate

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### HSNO Controls:

Trigger Quantities for this Material:

- Approved Handler Test Certificate: Not Required
- Location/Transit Depot Certificate: Not Required
- Hazardous Atmosphere Zone: Not Required
- Signage: 100 L
- Emergency Plan, Secondary Containment: 100L
- Tracking: Not required

The trigger quantities above must take into account any other hazardous substance that is present at that location. This represents a partial list of the controls for this material. Contact Key Industries Ltd a full list of HSNO controls.

## 16. OTHER INFORMATION

### Reasons for Issue:

New SDS.

### Abbreviations:

TWA - the highest allowable exposure concentration in an eight-hour day for a five-day working week

STEL - maximum allowable exposure concentration at any time

CAS Number: Chemical Abstracts Number

EPA: Environmental Protection Agency

HSNO: Hazardous Substances and New Organisms

### References:

- Supplier Safety Data Sheets
- Hazardous Substances Databank
- EPA Chemical Classification Information Database
- FOOTPRINT Pesticides Database
- Sax's Dangerous Properties of Industrial Materials, 11th Ed, 2007
- Synapse Chemlib Handbook of Solvents

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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 suppliers knowledge. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace. 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 Key Industries Limited.